

**HIGH EFFICIENCY  
MAST #15  
4D-R30TT W/ & W/O POWER TILT  
PARTS CATALOG**

**S/N -020-29000 & UP  
021-4000 & UP**

**DATED JAN 15, 1991  
GOES WITH PUBLICATION---PDMM-0005 (MODEL 20 & 21)**

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THE RAYMOND CORPORATION

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ELEVATING SECTION  
Figure 132-774- (C) Std.  
932-774- (C) C.S.

Item No.	Qty.	Part Number	Description	Item No.	Qty.	Part Number	Description
1	2	735-010-020	Ring Adapter	45	REF	828-000-663/	Back Cylinder Assembly (Std.)
2	2	632-001-023/002	Anchor Chain	46	REF	828-000-625/	Back Cylinder Assembly (C.S.)
3	2	123-001-198	Nut Spherical	47	2	828-000-511	Cover Plate
4	2	780-001-080	Roller Stud Stop	48	8	710-129	Hex Hd. Cap Screw 3/8-16 x 7/8
5	2	772-127	Lockwasher 5/8	49	1	828-000-992	L.H. Anchor Weld.
6	2	710-358	Hex Hd. Cap Screw 5/8-18 x 1 1/4	49	1	828-000-991	R.H. Anchor Weld.
7	14	449-015	Bearing Mast Roller	50	2	828-000-988	Anchor
8	AR	780-001-090	Spacer Track Roller	51	2	760-026	Lock Nut 7/16-20
9	AR	780-001-091	Spacer Track Roller	52	1	828-000-507/	Chain Staging Installation
10	AR	771-039	Shim	53	1	828-000-541	Capture Plate
11	AR	850-415	Spacer	54	3	702-166	Fl. Hd. Mach. Screw 12-24 x 1
12	4	771-116	Flat Washer 1/4	55	3	774-214	Lockwasher #12 Countersunk Ext. Tooth
13	4	715-016	Fl. Soc. Hd. Screw 10-32 x 1/2	56	3	870-677/001	Pulley
14	2	750-034	Nut 1/2-13	57	2	715-035	Soc. Hd. Set Screw 3/8-16 x 1 1/4
15	2	710-249	Hex Hd. Cap Screw 1/2-13 x 1 3/4	58	AR	771-033	Flat Washer 1"
16	2	812-002-864	Stop Block	59	1	828-001-140	Spacer Sheave
17	2	760-229	Nut 1/2-20	60	1	710-276	Hex Hd. Cap Screw 1/2-13 x 4 1/2
18	2	710-257	Hex Hd. Cap Screw 1/2-20 x 2 1/2	61	1	760-034	Lock Nut 1/2-13
19	4	411-075	Bumper	62	REF	828-000-523/003	Pulley Bracket Assembly
20	AR	771-053	Flat Washer	63	2	401-505	Sheave Chain Guide
21	4	750-006	Nut 1/4-20	64	2	810-132	Snap Ring
22	REF	828-000-523/002	Pulley Bracket Assembly	65	2	464-061	Washer Bearing
23	1	780-020-050	Cylinder Mounting Adapter	66	2	828-000-501	Anchor
24	1	780-002-040	Cylinder Mounting Plate	67	1	*040-908-010/025	Hose Assembly (Std.)
25	2	820-001-131	Sleeve	68	1	*040-908-010/022	Hose Assembly (Cold Storage)
26	2	771-025	Flat Washer 1/2	69	2	*123-001-197	Carriage Stop Assembly
27	2	715-038	Hex Hd. Cap Screw 1/2-20 x 1 1/4	70	2	*623-003-030	Half Shaft Sub-Assembly
28	2	760-141	Flex Lock Nut 5/8-18	71	2	*623-003-040	Half Shaft Sub-Assembly
29	2	780-002-060	Stud-Bearing Mounting	72	2	*710-246	Hex Hd. Cap Screw 1/2-13 x 1 1/2
30	2	780-002-061	Sleeve Roller Stud				
31	2	715-046	Fl. Soc. Hd. Screw 5/8-11 x 1 1/4				
32	1	030-906-009/431	Hose Assembly				
33	2	623-003-201	Carriage Stop				
34	2	726-025	Cone Pt. Soc. Hd. Set screw				
35	2	710-402	Hex Hd. Cap Screw 5/8-11 x 7 1/2				
36	2	773-023	Lockwasher 3/8				
37	2	760-243	Lock Nut 5/8-11				
38	1	828-000-717	Cylinder Bracket Weldment				
39	4	710-144	Hex Hd. Cap Screw 3/8-24 x 2				
40	4	760-019	Nut 3/8-24				
41	1	828-000-961/	Mast Main Frame Weldment (Std. & C.S.)				
42	1	828-000-614/	Mast Outer Tele Weldment				
43	1	828-000-662/	Mast Inner Tele Weldment				
44	REF	781-004-000/	Front Cylinder Assembly (Std.)				
	REF	828-000-626/	Front Cylinder Assembly (C.S.)				

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ELEVATING CYLINDER - FRONT  
Figure 781-004-000/ (N)

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<u>Item No.</u>	<u>Qty.</u>	<u>Part Number</u>	<u>Description</u>
1	1	030-906-009/431	Hose Assembly
2	2	123-001-049	Pulley Bracket Assembly
3	2	771-235	Spacer
4	1	530-727/02	Seal Repair Kit: Includes 1 Packing O-Ring, 1 Oil Seal, 1 Piston Seal, 1 Back-Up Ring, and 2 Snap Rings
	1	530-727/01	Seal Repair Kit (Cold Storage): Includes 1 Oil Seal, 1 Packing, 1 Adapter 1 Packing Back-Up Ring, 1 Snap Ring
5	1	123-001-106	Pulley Shaft
6	1	123-001-107	Pulley Bracket Mach.
7	2	710-134	Hex Hd. Cap Screw 3/8-16 x 1 1/4
8	1	724-259	Soc. Hd. Set Screw 8-32 x 3/8
9	1	781-004-131	Sheave
10	2	123-001-198	Spherical Lock Nut 3/4-16
11	1	530-633	Oil Seal
12	3	531-025	Fiber Washer
13	3	623-005-120	Back-Up Ring
14	3	623-005-121	Double Gland Seal
15	2	624-001-117	Adapter (4000#) - Remove for 2" Lowered Hieght
16	2	624-004-040	Tubing Assembly (4000 lb. only)
17	2	++624-009-010/	Lift Chain Assembly (4000#)
	2	680-821	Connecting Link 3/4
	1	681-030	Bulk Chain - Specify Length
	8	771-053	Flat Washer 1/4
18	2	++628-000-063/	Lift Chain Assembly (2 & 3000#)
	2	680-821	Connecting Link 3/4
	1	681-030	Bulk Chain - Specify Length
	8	771-053	Flat Washer 1/4
19	3	714-017	Soc. Hd. Cap Screw 10-24 x 3/4
20	1	715-033	But. Hd. Cap Screw 5/16-24 x 3/8
21	1	714-038	Hex Hd. Cap Screw 1/2-20 x 1 1/4
22	2	735-010-020	Adapter (Remove for 1 1/2" Lowered Height
23	1	760-141	Lock Nut 5/8-16 (4000#)
24	1	760-149	Lock Nut 5/8-16 (2 & 3000#)
25	1	771-025	Flat Washer 1/2
26	4	722-123	Lockwasher 3/8
27	2	780-004-050	Tubing Assembly (2 & 3000#)
28	1	780-004-100	Retaining Ring
29	1	780-004-110	Piston
30	2	780-020-100	Chain Anchor
31	1	810-028	Snap Ring
32	2	781-004-131	Sheave
33	1	830-151	Spring

++ When ordering, give truck model, serial number, complete part name and OACH; or find complete part number on truck's Quality Assurance Sheet.

THE RAYMOND CORPORATION

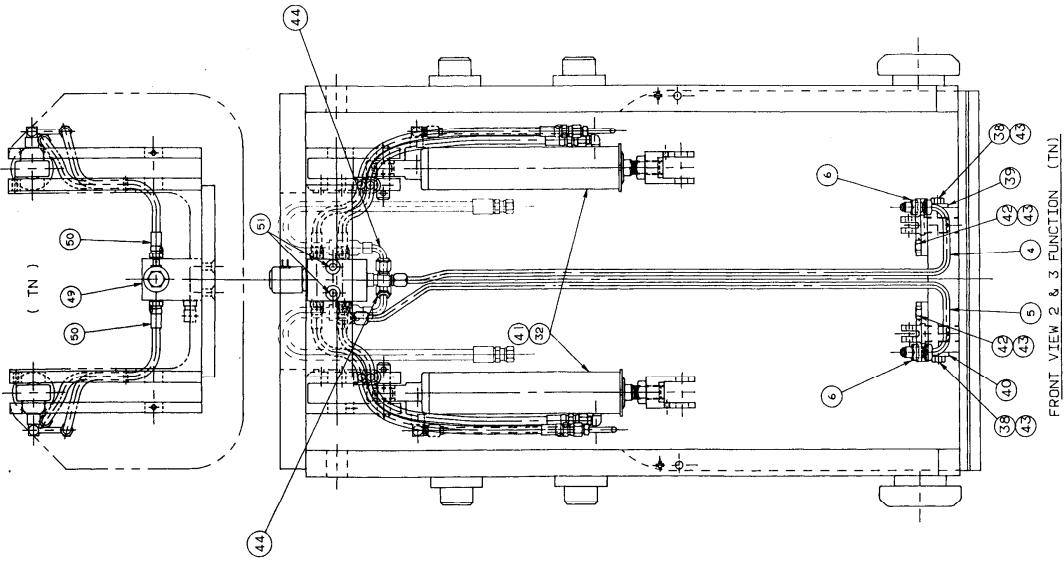
PULLEY BRACKET ASSEMBLY  
Figure 828-000-523/003 (F)

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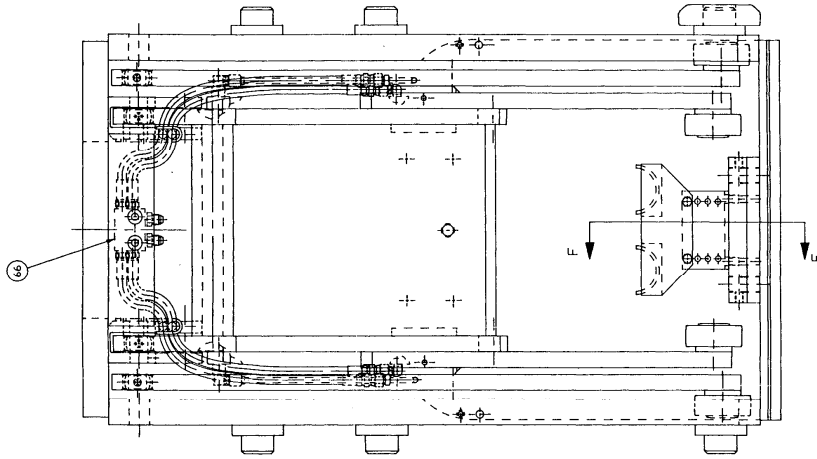
<u>Item No.</u>	<u>Qty.</u>	<u>Part Number</u>	<u>Description</u>
1	1	828-000-542	Bracket Machining
2	1	828-000-543	Side Plate Weldment
3	1	828-000-544	Side Plate L.H.
4	2	828-000-545	Sheave
5	4	828-000-546	Roller (S/N 29000/4000/13050 to ____)
	4	828-001-508	Roller (S/N ____ and Up)
6	4	715-026	Fl. Hd. Mach. Screw 5/16-18 x 3/4
7	1	401-503	Pulley Assembly
8	2	114-004-030/004	Spacer
10	1	828-000-551	Pulley Shaft
11	2	710-134	Hex Hd. Cap Screw 3/8-16 x 1 1/4
12	2	772-123	Lockwasher 3/8
13	1	726-021	Soc. Hd. Cap Screw 1/4-20 x 5/8

HIGH EFFICIENCY MAST

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FRONT VIEW 2 & 3 FUNCTION (TN)  
PART NO: /003 & /004



FRONT VIEW SINGLE FUNCTION  
PART NO: /005 /006 /007 & /106

SECTION F-F

Model 20 - S/N \_\_\_\_\_ and Up  
Model 21 - S/N \_\_\_\_\_ and Up  
Model 31 - S/N \_\_\_\_\_ and Up  
Sheet 4 of 4

REACH CARRIAGE ASSEMBLY  
Figure 828-000-619/ (J)

# THE RAYMOND CORPORATION

CYLINDER ASSEMBLY  
Figure 540-047/

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<u>Item No.</u>	<u>Qty.</u>	<u>Part Number</u>	<u>Description</u>
540-047/100 - CESSNA			
4	1	540-047/01	Piston
5	1	540-020/02	Barrel Assembly
6	1	540-020/03	Piston Rod
7	1	540-020/04	Bearing
8	1	540-047/03	Sleeve
9	1	540-020/09	Bearing Nut
10	1	540-047/04	Hex Nut 1/2-20
11	1	540-047/06	Seal Repair Kit: Includes 6 O-Rings, 1 Shaft Seal, 1 Lock Ring, 4 Back-Up Washers, 1 Snap Ring and 1 Slipper Ring.
540-047/200 - BRUNNING			
12	1	540-047/211	Lock Nut
13	1	540-047/212	Piston Assembly: Includes
	1	540-047/213	Piston
	1	**	O-Ring
	1	**	Back-Up Washer
14	1	**	O-Ring
15	1	540-047/214	Tube Assembly
16	1	540-047/215	Rod
17	1	540-047/216	Head Assembly: Includes
	1	540-047/217	Head-Bush. Assembly
	2	**	O-Rings
	1	**	Rod Wiper
18	1	**	Lock Ring
19	1	540-047/218	Spacer
20	1	540-047/219	Lock Ring
21	1	*540-047/220	Seal Kit: Includes 4 O-Rings, 1 Back-Up Washer, 1 Rod Wiper and 1 Lock Ring

\* Not illustrated.

# THE RAYMOND CORPORATION

828-000-XXX/OXX

FORK CARRIAGE SIZE  
(MAXIMUM ADJUSTMENT)

P/N	MAX. FORK ADJ.
024	24
027	27
030	30
048	48

CONFIGURATION

MODEL		P/N	W/O ITEM	
	STD.	R30	820	
		R40	821	
	4-D	R30	822	A, B, D to K, & 30
		R40	823	A to C, E to K, & 31
W/ PT	STD.	R30	824	A to D, F, H, K, & 31
		R40	825	A to E, G, J, & 31
	4-D	R30TN	826	
		R30TF/TT	827	
		R40TN	828	
		R40TF/TT	829	

THE RAYMOND CORPORATION

MAST GUARD INSTALLATION

Figure 828-001-007/ (A)

Figure 828-001-006/ (A)

Item No.	Qty.	Part Number	Description
1	2	813-025	Welding Stud 1/4-20 x 1 1/2
2	6	774-116	Lockwasher Ext. Tooth 1/4
3	4	750-006	Hex Nut 1/4-20
4	4	701-220	Truss Hd. Mach. Screw 1/4-20 x 1/2
5	1	828-001-006/	Mast Guard Assembly
5.1	1	828-001-094/	Mast Guard Weldment
5.2	AR	370-602	Channel Cushion
5.3	1	828-001-017/	Glass Mast Guard
6	2	828-001-153	Bracket
7	2	828-001-154/001	Bracket
8	2	828-001-154/002	Bracket
9	2	828-001-155	Bracket
10	1	828-001-093/	Screen Guard

828-001-007/

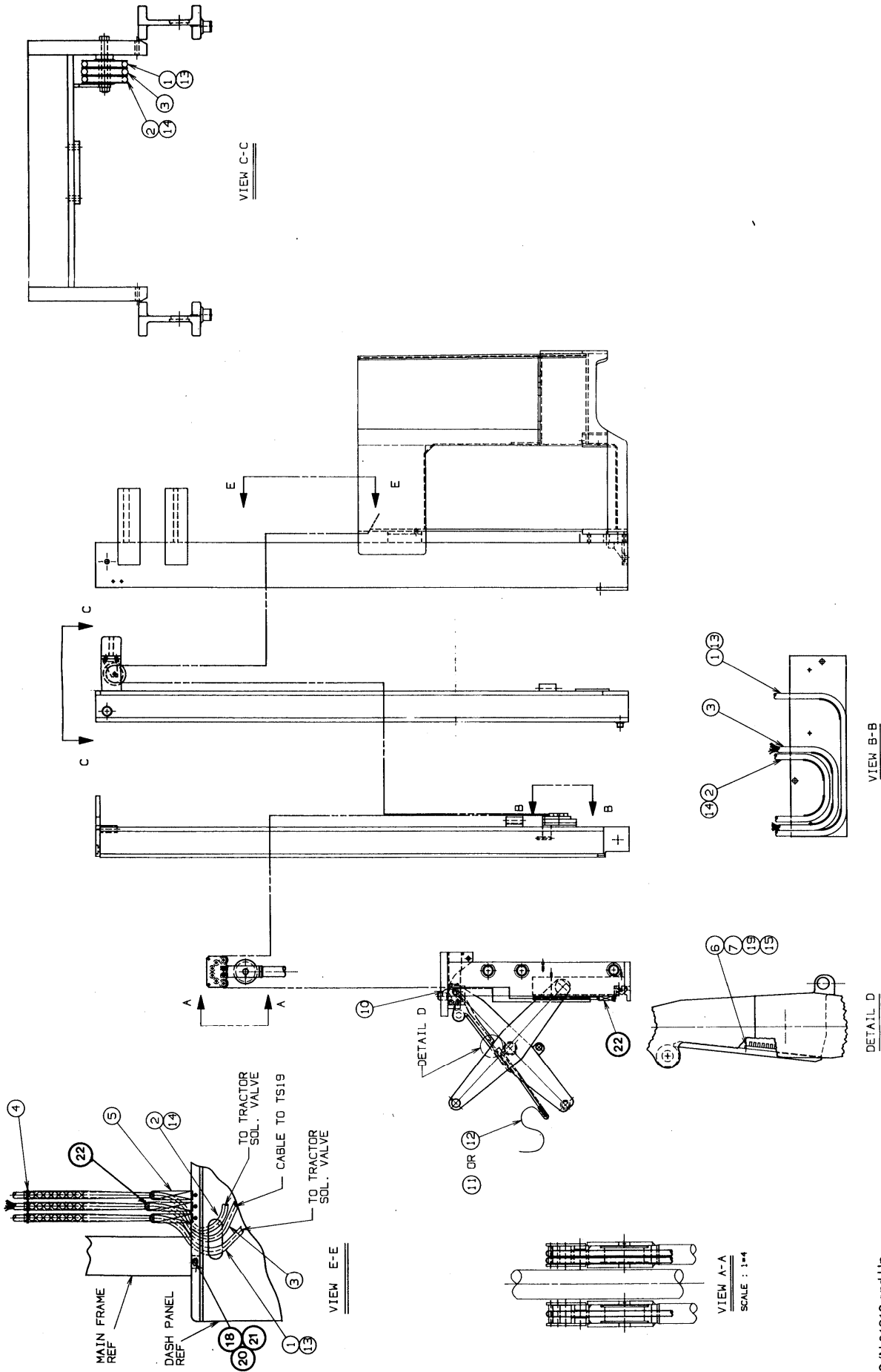
P/N	TYPE	W/O ITEM
1	Glass	10
2	Screen	5

MTG.	W/O ITEM	MAST TYPE	D=	P/N
A	6, 8, 9	R30TN/TT	1.50	1
A	6, 7, 9	R40TN/TT	2.25	2
B	7, 8, 9	R40TT-M	3.25	3
B	7, 8, 9	DRTN	3.50	4
B	6, 7, 8	DRTT	3.50	5

P/N	GUARD HEIGHT	OACH	C=
1	12"	72-74	12.25
2	16"	75-78	16.25
3	20"	79 & Up	20.25

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Model 20 - S/N 31919 and Up  
Model 21 - S/N 5408 and Up  
Model 31 - S/N 15207 and Up  
Sheet 1 of 2

HOSE AND CABLE INSTALLATION  
Figure 828-000-801 / thru 803 / (F)

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