

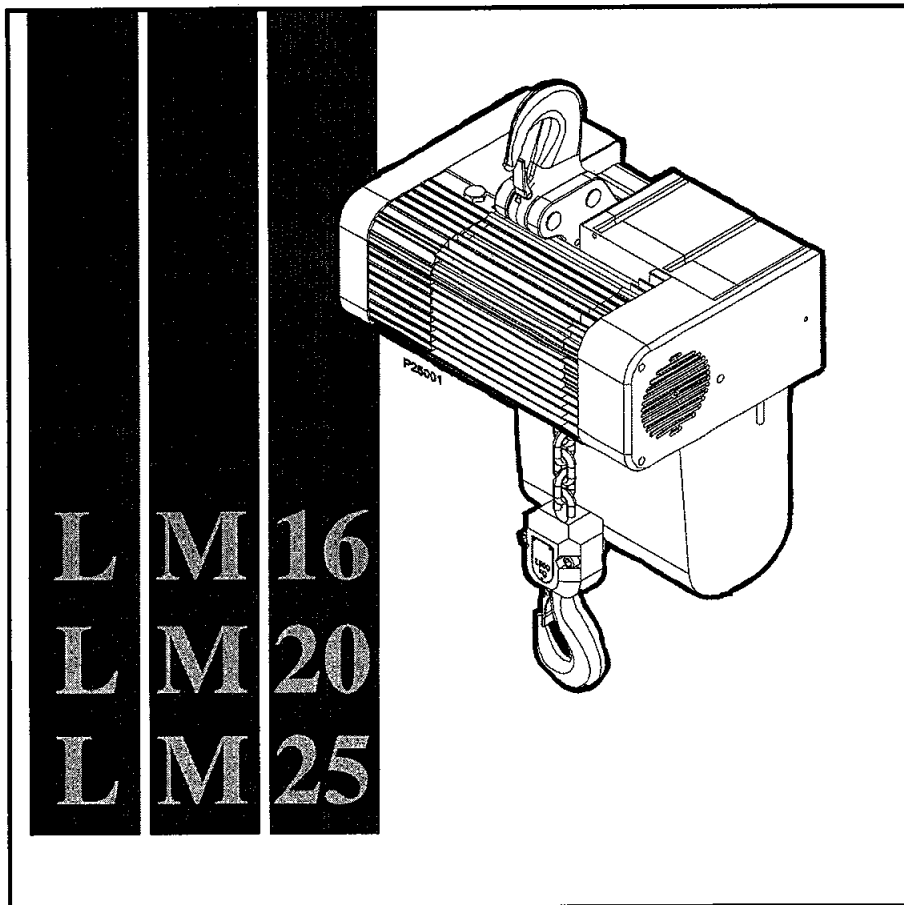


® R&M Materials Handling, Inc
Springfield, Ohio USA
☎: 800 955-9967
www.rmhoist.com

LoadMate® Chain Hoist
LM16-20-25 Manual
April 2005

LoadMate®

LM16 / 20 / 25 ELECTRIC CHAIN HOIST



INSTALLATION & MAINTENANCE INSTRUCTIONS

JOB NO. : _____

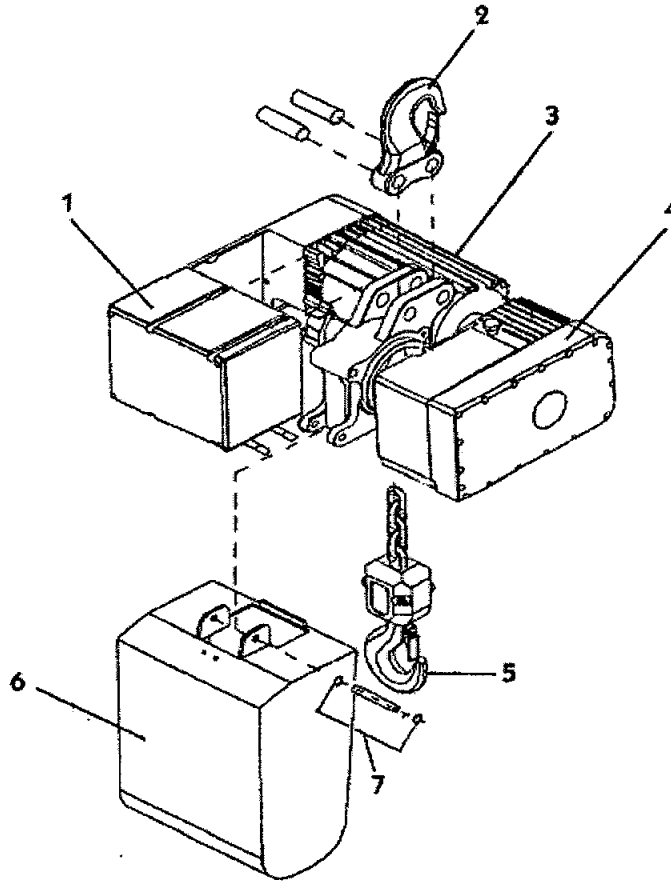
SERIAL NO. : _____

(RECORD HOIST SERIAL NUMBER FOR FUTURE REFERENCE)



7 PARTS ILLUSTRATIONS

7.1 Basic Hoist Assembly





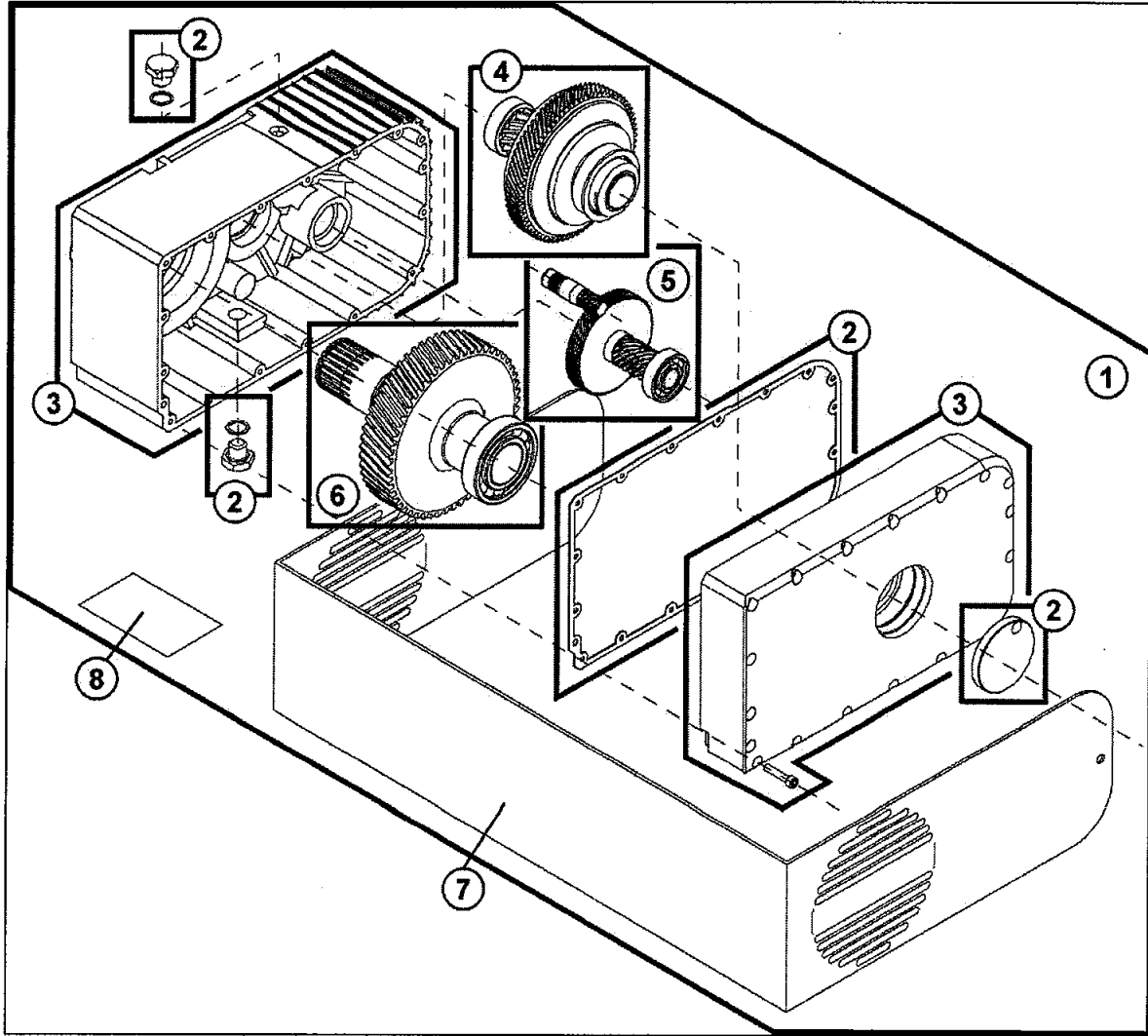
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ITEM	PART NUMBER	DESCRIPTION	QTY
1	-	SEE "CONTROLS" SECTION 6.6	1
2	-	SEE "LIFTING ASSEMBLY" SECTION 6.4 & 6.5	1
		STANDARD BODY & CONTROL ASSEMBLIES	
	2269955	C16 BODY (TS) 200-230V 1+3+4	1
	2269956	C16 BODY (TS) 460V 1+3+4	1
	2269957	C16 BODY (TS) 575V 1+3+4	1
	2279965	C20 BODY (TS) 200-230V 1+3+4	1
	2279966	C20 BODY (TS) 460V 1+3+4	1
	2279967	C20 BODY (TS) 575V 1+3+4	1
	2279968	C25 BODY (TS) 200-230V 1+3+4	1
	2279969	C25 BODY (TS) 460V 1+3+4	1
	2279970	C25 BODY (TS) 575V 1+3+4	1
3	-	SEE "MOTOR & BRAKE ASSEMBLY" SECTION 6.3	1
4a	2260500	C16/20 GEARBOX 113:1 32 / 8 FPM	1
4b	2270500	C25 GEARBOX 144.2:1 24 / 6 FPM	1
5		SEE "LIFTING ASSEMBLY" SECTIONS 6.4 & 6.5	1
6a	2279930	CHAIN BUCKET & PIN KIT 50FT-C16 / 40FT-C25	1
6b	2279931	CHAIN BUCKET & PIN KIT 150FT-C16 / 100FT-C25	1
6c	2279932	CHAIN BUCKET & PIN KIT C20 & C25 150FT MAX.	1
7	2279912	CHAIN BUCKET PIN KIT	1



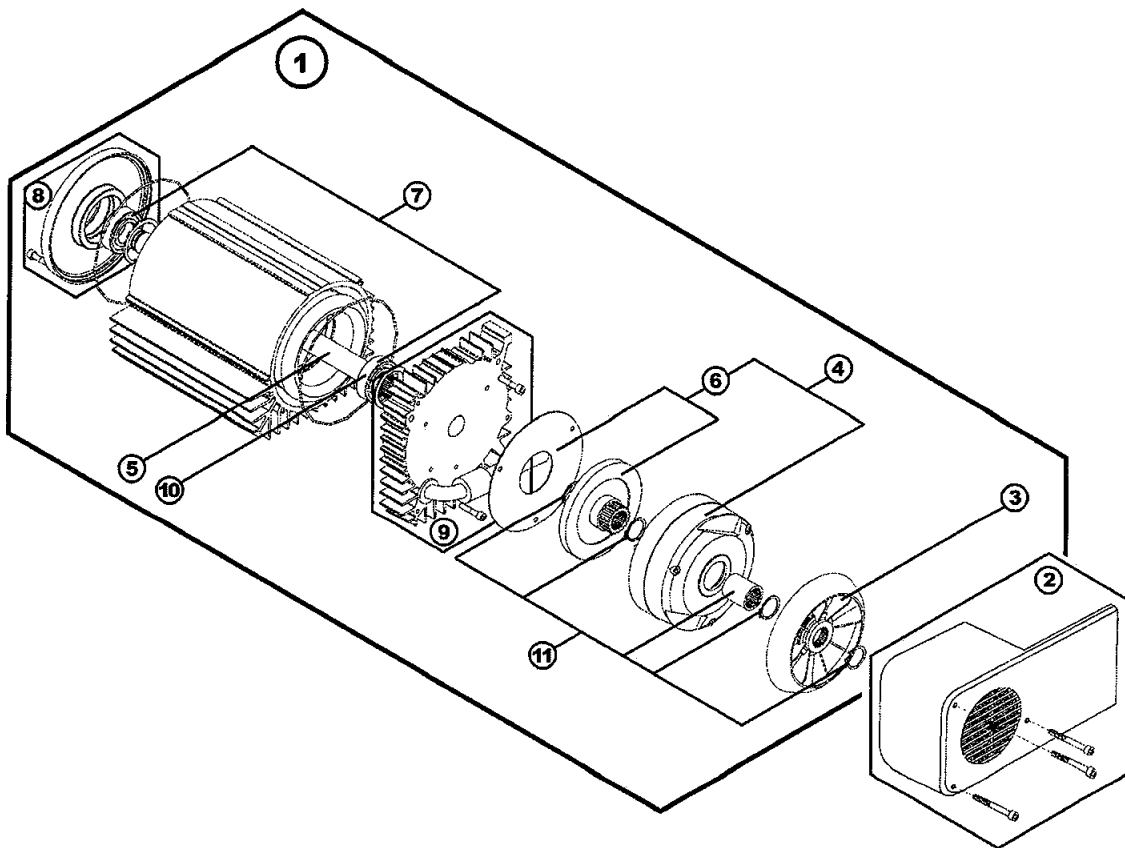
7.2 Hoist Gearbox Components





ITEM	PART NUMBER	DESCRIPTION	QTY
1	2260500	C16/20 GEARBOX ASSEMBLY – 113:1 – 32 / 8 FPM	1
1	2270500	C25 GEARBOX ASSEMBLY – 144.2:1 – 24 / 6 FPM	1
2	2279923	SEAL SET	1
3	2270000	GEAR CASE HOUSING	1
4	2279904	GEAR SET – 2 nd REDUCTION	1
5a	2279902	GEAR SET – 1 st REDUCTION – C16/20	1
5b	2279903	GEAR SET – 1 st REDUCTION – C25	1
6	2279905	GEAR SET – 3 rd REDUCTION	1
7	2406890001	LM BRANDING BAND	1
7a	2406879005	LM16 BRANDING STICKER SET	1
7b	2406879006	LM20 BRANDING STICKER SET	1
7c	2406879004	LM25 BRANDING STICKER SET	1
8	2213309002	HOIST BODY CAPACITY STICKER – ½ TON	1
8	2213309003	HOIST BODY CAPACITY STICKER – 1 TON	1
8	2213309004	HOIST BODY CAPACITY STICKER – 2.0 TON	1
8	2213309008	HOIST BODY CAPACITY STICKER – 500 KG	1
8	2213309009	HOIST BODY CAPACITY STICKER – 1000 KG	1
8	2213309010	HOIST BODY CAPACITY STICKER – 2000 KG	1
8	2213309011	HOIST BODY CAPACITY STICKER – 3200 KG	1
8	2213309012	HOIST BODY CAPACITY STICKER – 5000 KG	1
8	2213309013	HOIST BODY CAPACITY STICKER – 5.0 TON	1
8	2213309014	HOIST BODY CAPACITY STICKER – 1.5 TON	1
8	2213309015	HOIST BODY CAPACITY STICKER – 2.5 TON	1
8	2213309016	HOIST BODY CAPACITY STICKER – 1500 KG	1
8	2213309017	HOIST BODY CAPACITY STICKER – 2500 KG	1
8	2213309019	HOIST BODY CAPACITY STICKER – 4000 KG	1
-	2213445001	ELECTRICAL WIRING INFORMATION STICKER	1
-	2213445002	ELECTRICAL HAZZARD WARNING STICKER	1

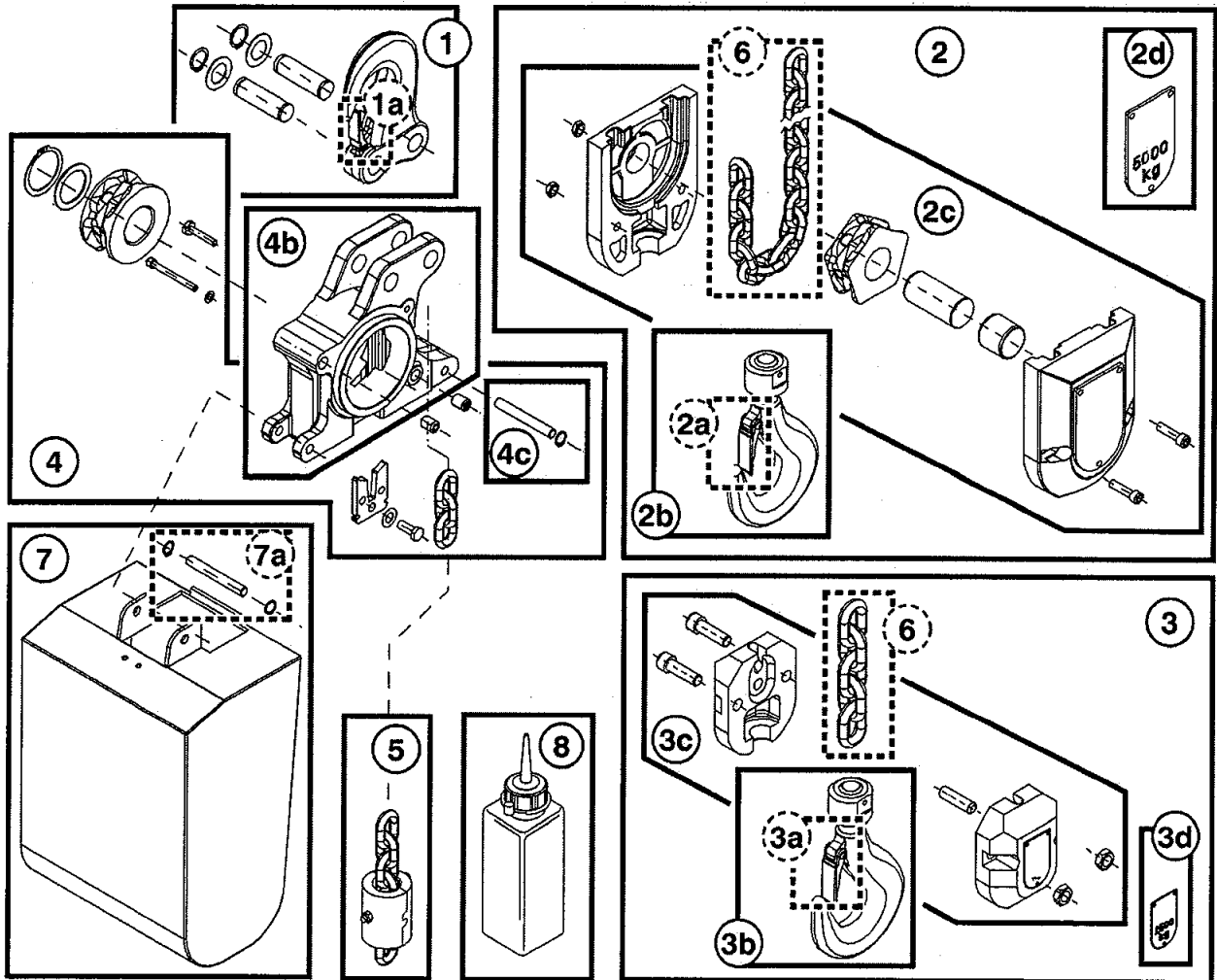
7.3 C16 / C20 / C25 Hoist Motor & Brake Assembly





ITEM	PART NUMBER	DESCRIPTION	QTY
1a	2245033	C16 / C20 MOTOR & BRAKE ASSY with PINION 208/230V	1
1b	2245031	C16 / C20 MOTOR & BRAKE ASSY with PINION 460V	1
1c	2245032	C16 / C20 MOTOR & BRAKE ASSY with PINION 575V	1
1d	2245038	C25 MOTOR & BRAKE ASSY with PINION 208/230V	1
1e	2245036	C25 MOTOR & BRAKE ASSY with PINION 460V	1
1f	2245037	C25 MOTOR & BRAKE ASSY with PINION 575V	1
2	2279901	BRAKE COVER END CAP & SCREW SET	1
3	2275040	FAN ASSEMBLY	1
4a	2275045	MOTOR BRAKE ASSY 100VDC - 208/230VAC	1
4b	2275042	MOTOR BRAKE ASSY 180VDC - 460VAC	1
4c	2275043	MOTOR BRAKE ASSY 240VDC - 575VAC	1
5a	2275051	ROTOR ASSEMBLY – TWO SPEED MOTOR	1
5b	2275052	ROTOR ASSEMBLY – INVERTER MOTOR	1
6	2275041	BRAKE DISC ASSEMBLY	1
7a	2275049	BEARING SET – TWO SPEED MOTOR	1
7b	2275050	BEARING SET – INVERTER MOTOR	1
8	2275046	MOTOR END FLANGE – GEARBOX SIDE	1
9	2275047	MOTOR END FLANGE – BRAKE SIDE	1
10	2275048	SENSOR BEARING – INVERTER MOTOR	1
11	2275053	RETAINING RING AND SPLINED TUBE ASSEMBLY	1

7.4 Lifting Assembly – C16 Only



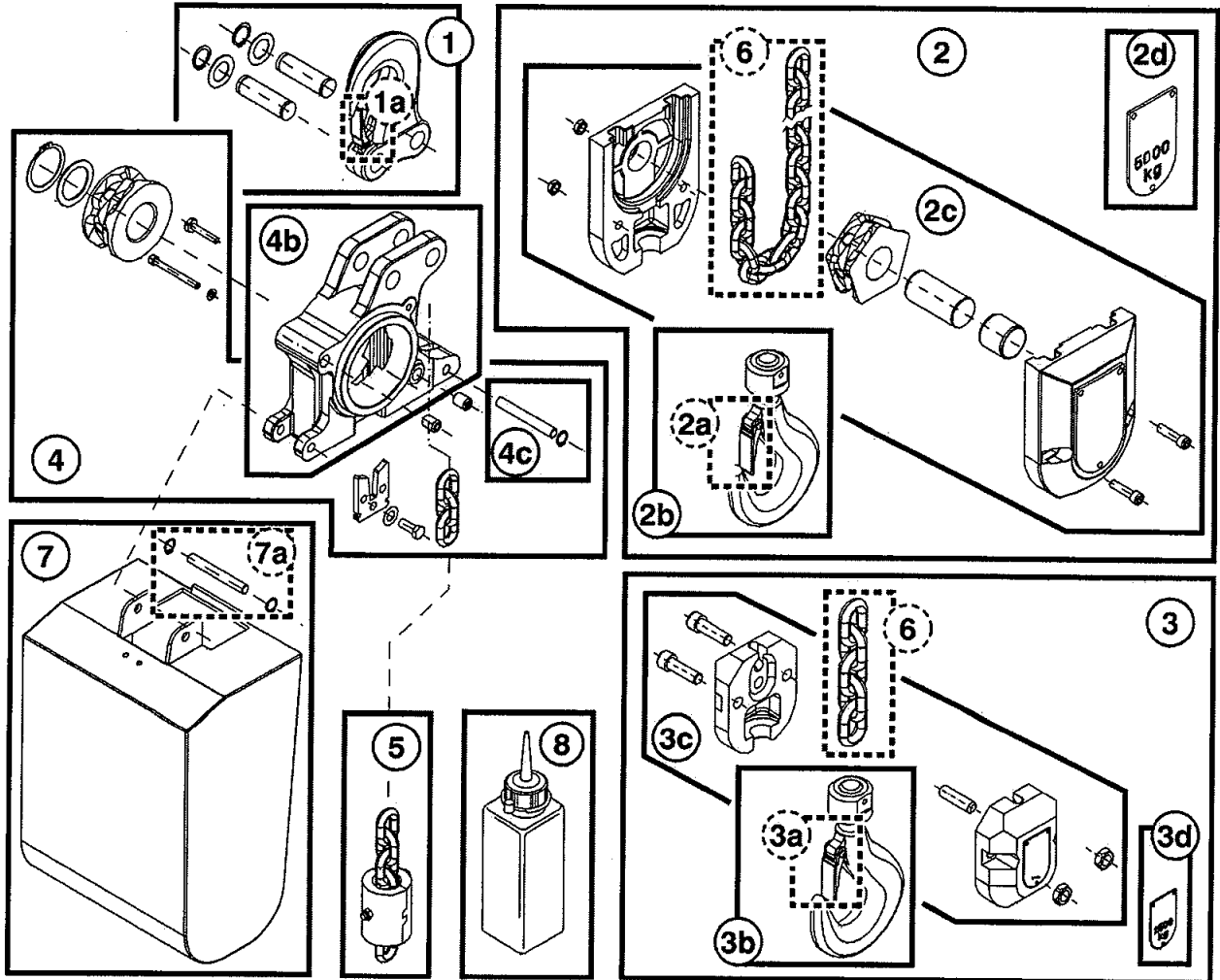


C16 PARTS ONLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	2279955	TOP HOOK SET (includes 2+3+4+5+6)	1
1a	2279914	TOP HOOK SAFETY LATCH – STEEL PLATE TYPE	1
2	2269915	C16 HOOK BLOCK ASSEMBLY 2-FALL	1
2a	2279914	C16 HOOK SAFETY LATCH 2-FALL STEEL PLATE TYPE	1
2b	2267000	C16 HOOK ASSEMBLY 2-FALL	1
2c	2269916	C16 BOTTOM BLOCK HOUSING SET	1
2d	2213405003	CAPACITY STICKER – 2 TON 2-FALL	2
2d	2213405004	CAPACITY STICKER – 3 TON 2-FALL	2
2d	2213405010	CAPACITY STICKER – 2000 KG 2-FALL	2
2d	2213405011	CAPACITY STICKER – 3000 KG 2-FALL	2
3	2269900	C16 HOOK BLOCK ASSEMBLY 1-FALL	1
3a	001513	C16 HOOK SAFETY LATCH 1-FALL – WIRE TYPE	1
3b	2242021	C16 HOOK ASSEMBLY 1-FALL	1
3d	2213405001	CAPACITY STICKER – 1 TON 1-FALL	2
3d	2213405002	CAPACITY STICKER – 1.5 TON 1-FALL	2
3d	2213405008	CAPACITY STICKER – 1000 KG 1-FALL	2
3d	2213405009	CAPACITY STICKER – 1500 KG 1-FALL	2
4	2269913	C16 CHAIN SPROCKET SET	1
4b	2265502	C16 CHAIN GUIDE	1
5	2269942	C16 SLACK FALL STOP	1
6a	2263500	C16 LOAD CHAIN – ZINC PLATED (STANDARD)	N
6b	2263502	C16 LOAD CHAIN – STAINLESS STEEL – CHECK CAPACITY	N
7	2279930	CHAIN CONTAINER & MTG PIN SET - 50ft C16 / 40ft C20/25	1
7	2279931	CHAIN CONTAINER & MTG PIN SET – 150ft C16 / 100ft C20/25	1
7	2279932	CHAIN CONTAINER & MTG PIN SET – 150ft C20/25	1
8	9995008	CHAIN LUBE	1



7.5 Lifting Assembly – C20/25 Only



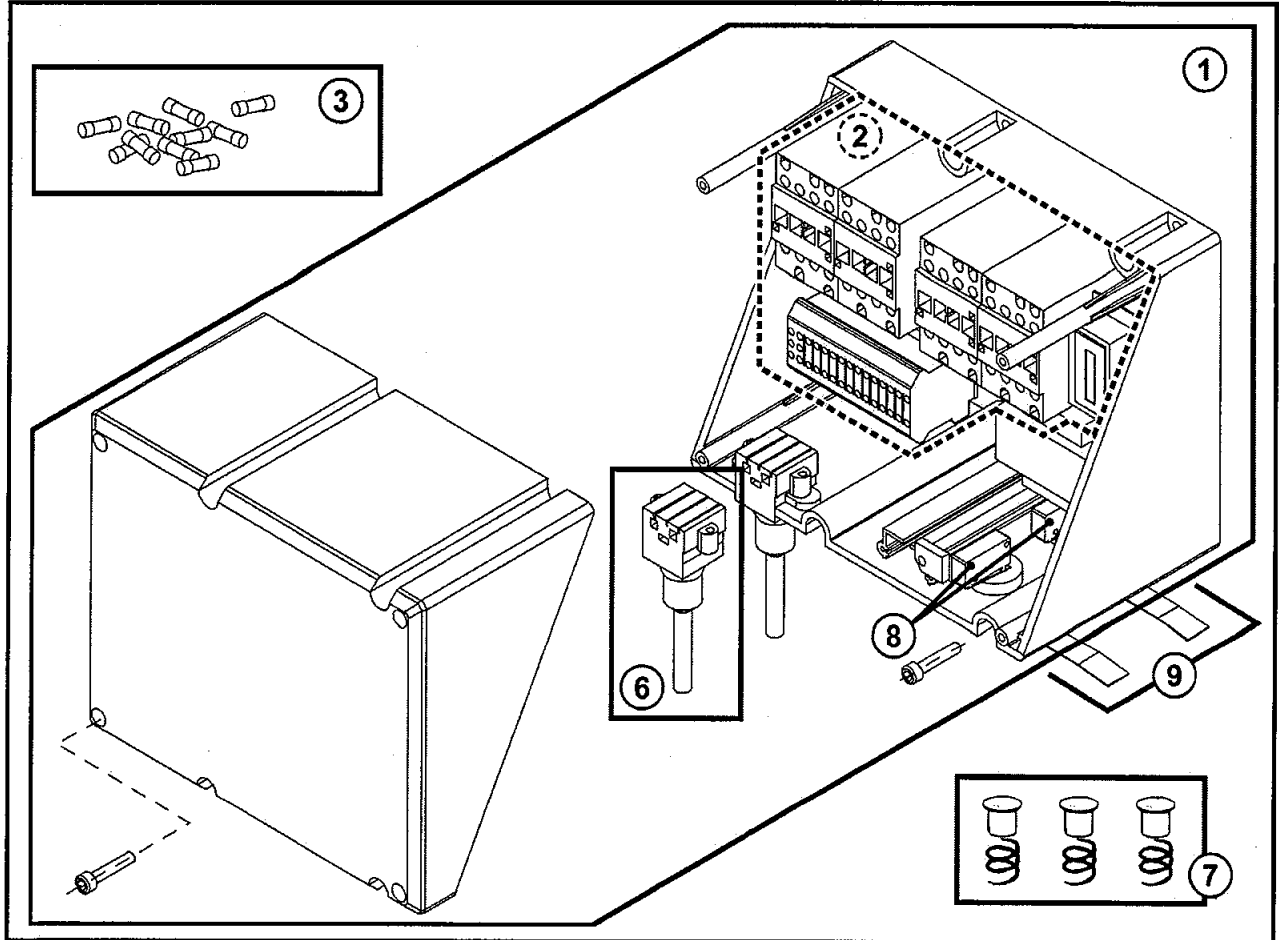


C20/25 PARTS ONLY

ITEM	PART NUMBER	DESCRIPTION	QTY
1	2279955	TOP HOOK SET (includes 2+3+4+5+6)	1
1a	2279914	TOP HOOK SAFETY LATCH – STEEL PLATE TYPE	1
2	2279915	C20/25 HOOK BLOCK ASSEMBLY 2-FALL	1
2a	2279914	C20/25 HOOK SAFETY LATCH 2-FALL STEEL PLATE TYPE	1
2b	2277001	C20/25 HOOK ASSEMBLY 2-FALL	1
2d	2213406002	CAPACITY STICKER – 3 TON 2-FALL	2
2d	2213406005	CAPACITY STICKER – 4 TON 2-FALL	2
2d	2213406003	CAPACITY STICKER – 5 TON 2-FALL	2
2d	2213406009	CAPACITY STICKER – 3000 KG 2-FALL	2
2d	2213406013	CAPACITY STICKER – 4000 KG 2-FALL	2
2d	2213406010	CAPACITY STICKER – 5000 KG 2-FALL	2
3	2279900	C20/25 HOOK BLOCK ASSEMBLY 1-FALL	1
3a	2242017	C20/25 HOOK SAFTEY LATCH 1-FALL – WIRE TYPE	1
3b	2277000	C20/25 HOOK ASSEMBLY 1-FALL	1
3d	2213405002	CAPACITY STICKER – 1.5 TON 1-FALL	2
3d	2213405003	CAPACITY STICKER – 2.0 TON 1-FALL	2
3d	2213405004	CAPACITY STICKER – 3.0 TON 1-FALL	2
3d	2213405009	CAPACITY STICKER – 1500 KG 1-FALL	2
3d	2213405010	CAPACITY STICKER – 2000 KG 1-FALL	2
3d	2213405007	CAPACITY STICKER – 3000 KG 1-FALL	2
4	2279911	C20/25 CHAIN SPROCKET SET	1
4b	2275502	C20/25 CHAIN GUIDE	1
5	2279942	C20/25 SLACK FALL STOP	1
6a	2273500	C20/25 LOAD CHAIN – ZINC PLATED (STANDARD)	N
6b	2273502	C20/25 LOAD CHAIN – STAINLESS STEEL – CHECK CAPACITY	N
7	2279930	CHAIN CONTAINER & MTG PIN SET – 50ft C16 / 40ft C20/25	1
7	2279931	CHAIN CONTAINER & MTG PIN SET – 150ft C16 / 100ft C20/25	1
7	2279932	CHAIN CONTAINER & MTG PIN SET – 150ft C20/25	1
8	9995008	CHAIN LUBE	1



7.6 C16 / C20 / C25 Electrical Control Assembly

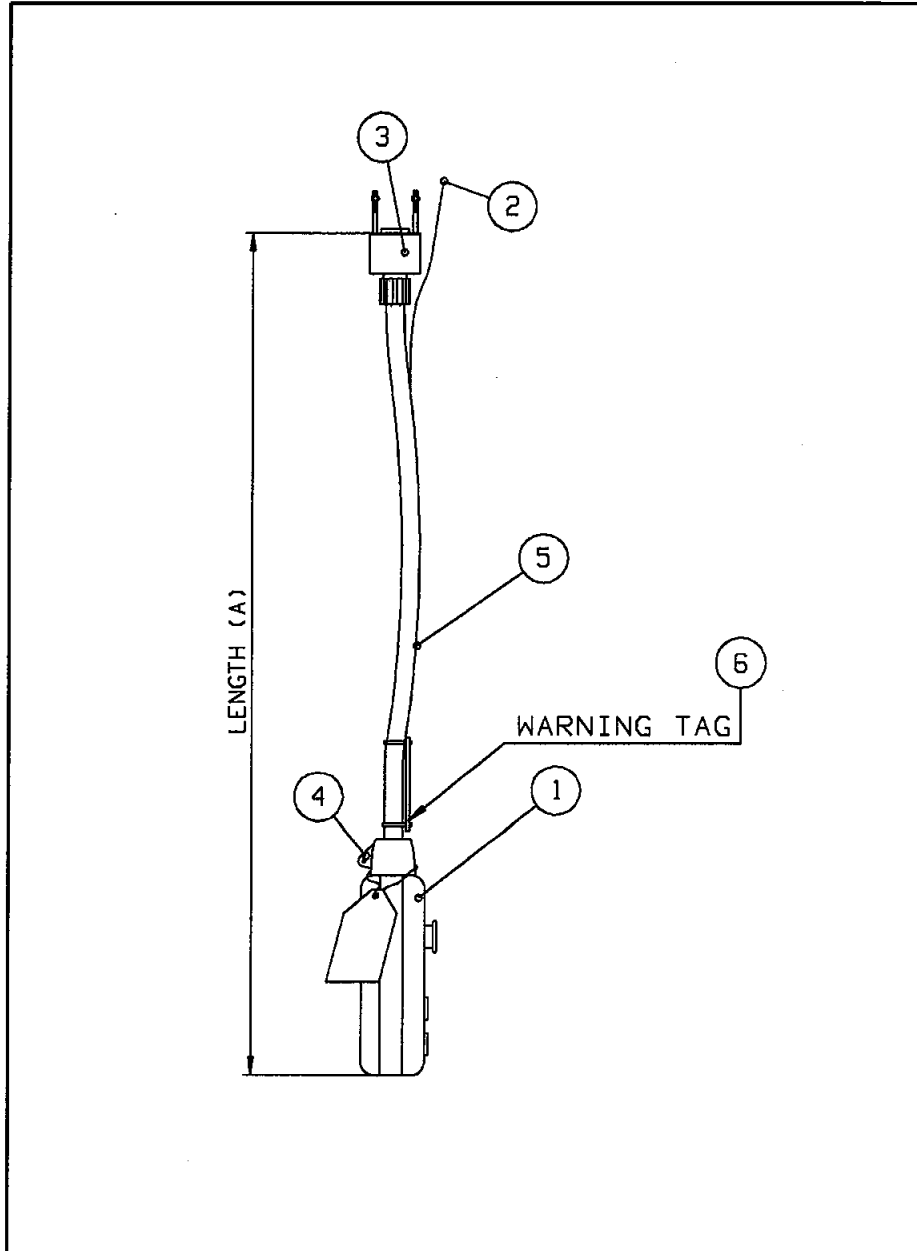




ITEM	PART NUMBER	DESCRIPTION	QTY
1	2263015	CONTROL BOX (BASE + COVER)	1
2	2263006	CONTROL PANEL ASSEMBLY: 208/230/460V – 115V – 60HZ	1
2	2263007	CONTROL PANEL ASSEMBLY: 575V – 115V – 60HZ	1
2a	2309564005	CONTACTOR K10 - 208/230/460/575V – 115V CONT	1
2b	2309564006	CONTACTOR K21 or K22 - 208/230/460/575V – 115V CONT	1
2c	2309568004	CONTACTOR K25 - 208/230/460/575V – 115V CONT	1
2d	7983026	TRANSFORMER - 208/230/460V - 115V	1
2d	7983027	TRANSFORMER - 575V - 115V	1
2e	2243060	BRAKE RECTIFIER 4 – WIRES 208 - 575VAC	1
2e	2243061	BRAKE RECTIFIER 5 – WIRES 208 - 460VAC (RECONNECT)	1
3	2249979	1.25 AMP FUSES – SET OF 10	1
4	2249947	POWER CABLE GLAND	1
5	2219814	COVER PLATE – USED WHEN PLUG IS REMOVED	1
6	2249946	PLUG FOR TROLLEY CIRCUIT	1
6	2249982	POWER PLUG – OPTIONAL	1
6	2249945	PLUG FOR PENDANT	1
7a	2269010	C16 SPRING & WASHER ASSEMBLY – 1 FALL	2
7a	2269010	C16 SPRING & WASHER ASSEMBLY – 2 FALL	3
7b	2279010	C20/25 SPRING & WASHER ASSEMBLY – 1 FALL	2
7b	2279010	C20/25 SPRING & WASHER ASSEMBLY – 2 FALL	3
8	7291050	C16/20/25 U/L LIMIT MICRO SWITCH	2
9	2269004	C16/20/25 U/L LIMIT SWITCH LEVER ASSEMBLY	1
-	2263050	C16/20/25 U/L LIMIT SWITCH ASSEMBLY	1
-	2213445001	ELECTRICAL WIRING INFORMATION STICKER	1
-	2213445002	ELECTRICAL HAZZARD WARNING STICKER	1



7.7 Push Button Assembly –Vertical Pairs of Buttons





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ITEM	PART NUMBER	DESCRIPTION	QTY
1a	2309673010	P/B ASSEMBLY – 10 FT, E-STOP, SS HOIST	1
1b	2309673015	P/B ASSEMBLY – 15 FT, E-STOP, SS HOIST	1
1c	2309673020	P/B ASSEMBLY – 20 FT, E-STOP, SS HOIST	1
1d	2309674010	P/B ASSEMBLY – 10 FT, E-STOP, TS HOIST	1
1e	2309674015	P/B ASSEMBLY – 15 FT, E-STOP, TS HOIST	1
1f	2309674020	P/B ASSEMBLY – 20 FT, E- STOP, TS HOIST	1
1g	2309675010	P/B ASSEMBLY – 10 FT, E-STOP, SS HOIST, TS TROLLEY	1
1h	2309675015	P/B ASSEMBLY – 15 FT, E-STOP, SS HOIST, TS TROLLEY	1
1k	2309675020	P/B ASSEMBLY – 20 FT, E-STOP, SS HOIST, TS TROLLEY	1
1m	2309676010	P/B ASSEMBLY – 10 FT, E-STOP, TS HOIST, TS TROLLEY	1
1n	2309676015	P/B ASSEMBLY – 15 FT, E-STOP, TS HOIST, TS TROLLEY	1
1p	2309676020	P/B ASSEMBLY – 20 FT, E-STOP, TS HOIST, TS TROLLEY	1
2	2218000	UPPER SUSPENSION KIT	1
3	2219812	PLUG KIT – P/B ASSEMBLY	1
4	2212752001	STRAIN RELIEF CABLE	1
5	2212753001	SUSPENSION UNIT	1
6	52292266	P/B ELECTRICAL CABLE – 16 GAUGE / 12 CONDUCTOR RPC	1
7a	2212932011	P/B ENCLOSURE ASSEMBLY: E-STOP, SH	1
7b	2212932012	P/B ENCLOSURE ASSEMBLY: E-STOP, TH	1
7c	2212932032	P/B ENCLOSURE ASSEMBLY: E-STOP, SH, TT	1
7c	2212932033	P/B ENCLOSURE ASSEMBLY: E-STOP, TH, TT	1
8	2309414001	R&M OPERATOR'S WARNING TAG - ENGLISH	1