

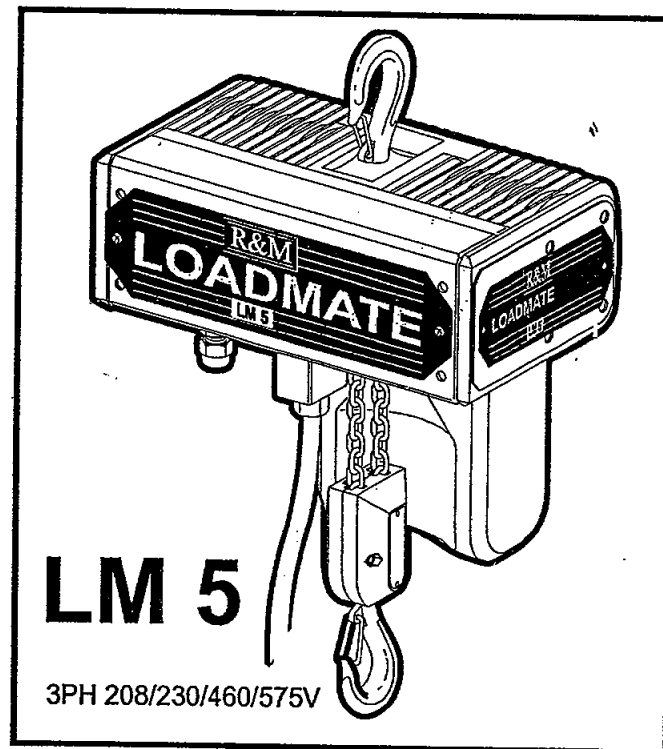


R&M

MATERIALS HANDLING

LoadMate® Chain Hoist
LM5 Manual
Revision 3

R&M LOADMATE CHAIN HOIST



INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

JOB NO. : _____

SERIAL NO. : _____

(RECORD HOIST SERIAL NUMBER FOR FUTURE REFERENCE)



R&M

MATERIALS HANDLING

LoadMate Chain Hoist
LM5 Spare Parts

Revision 3

Index of Exploded Illustrations and Parts Lists

HOIST BODY.....	2
GEAR MECHANISM & VERSION 1 BRAKE	4
GEAR MECHANISM & VERSION 2A BRAKE.....	6
GEAR MECHANISM & VERSION 2B BRAKE.....	8
LIFTING ASSEMBLY.....	10
CONTROLS.....	12
PUSHBUTTON.....	14
UPPER & LOWER LIMIT SWITCH.....	16



R&M

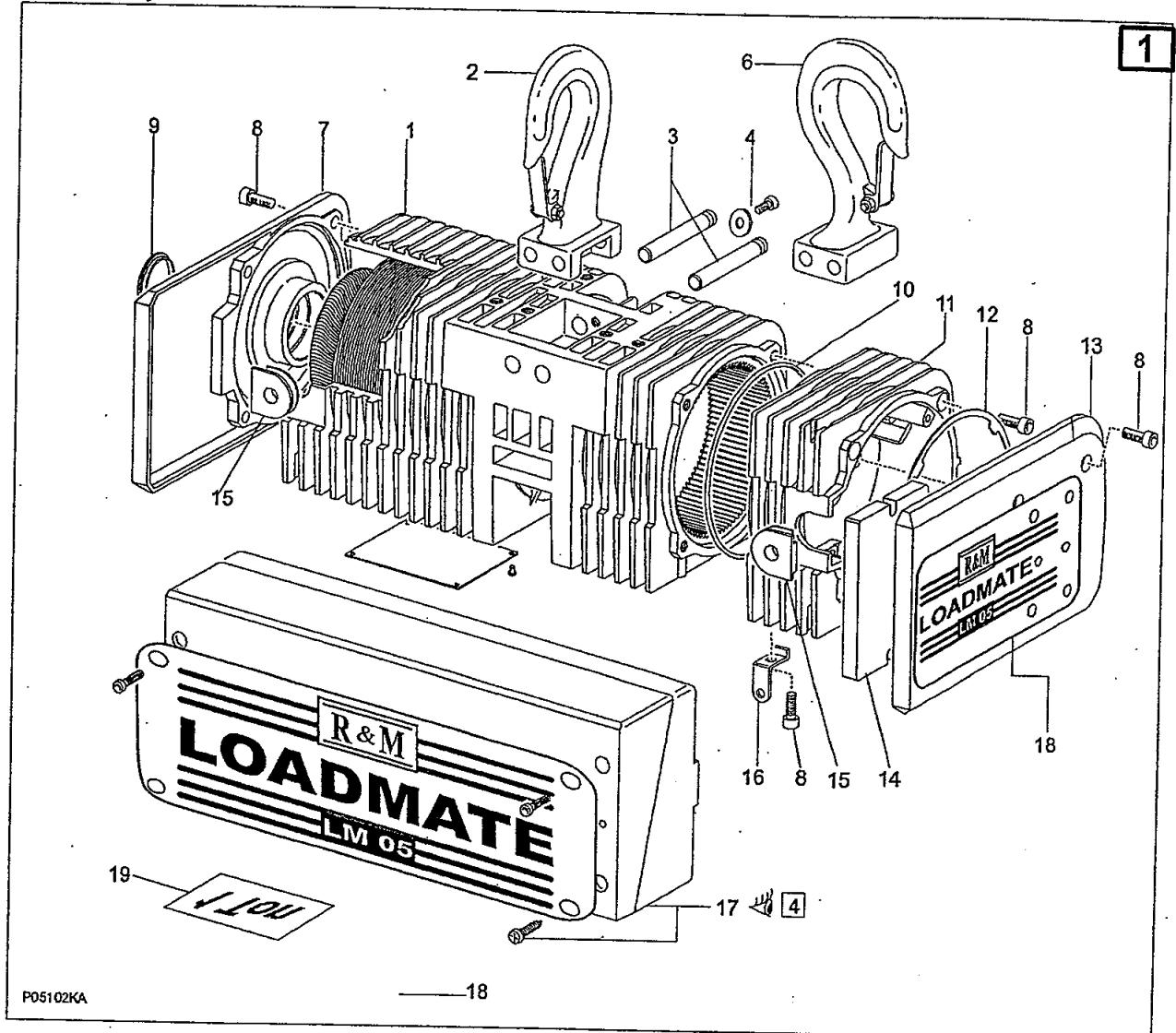
MATERIALS HANDLING

LoadMate Chain Hoist

LM5 Spare Parts

Revision 3

Hoist Body



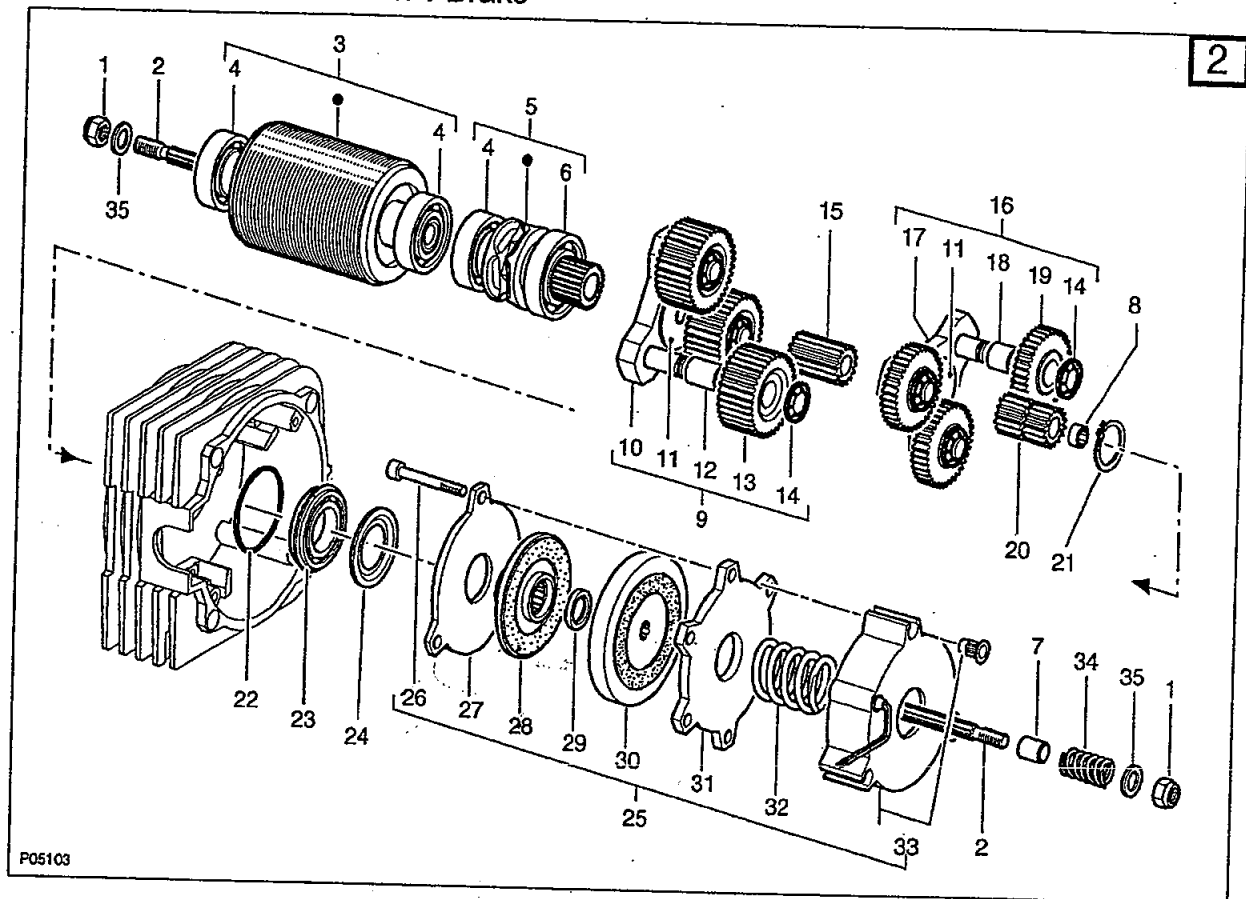


Hoist Body

Item	Part Number	Description	Comments	Qty
1		Hoist body		1
		Stator		
	2229943	Trolley coupling set-perpend. push	parallel for TDU	1
	2229942	Trolley coupling set-parallel push	perpend. for TDU	1
2	2219996	Suspension hook set	Perpendicular	1
3		Dowel pin		2
4		M8 Screw		1
6	2219995	Suspension hook set	Parallel	1
	2219961	Motor endcap & hardware set		1
7		Motor endcap		1
8		M6 Screw		13
9		Cap		1
10	8380202	O-ring 2 x 120-NB70		1
11	2210004	Brake end cap		1
12	2218002	Seal ring		1
13	2219962	Brake endcap with counterweight		1
15	2219960	Cable gromet		2
16	2218004	Suspension kit for pendant		1
17		Control enclosure		1
18	2406879001	Body branding label set		1
19	2213309001	Self adhesive load plate - 1/4 ton		1
19	2213309002	Self adhesive load plate - 1/2 ton		1
19	2213309003	Self adhesive load plate - 1 ton		1
19	2213309007	Self adhesive load plate - 250 kg		1
19	2213309008	Self adhesive load plate - 500 kg		1
19	2213309009	Self adhesive load plate - 1000kg		1



Gear Mechanism & Version 1 Brake



Version 1 brake is not interchangeable with Version 2 brake. Version 1 brake is obsolete, but selected spare parts are available.



R&M

MATERIALS HANDLING

LoadMate Chain Hoist

LM5 Spare Parts

Revision 3

Gear Mechanism & Version 1 Brake

Item	Part Number	Description	Comments	Qty
1		Self locking nut		2
2	2211500	Gear input shaft set		1
3	2215000	Rotor assembly	Two speed	1
3	2215001	Rotor assembly	Single speed	1
4		Bearing		1
5	2214001	Chain sprocket set assembled		1
	2219983	Sprocket equipment		1
6		Bearing		1
7		Bushing		1
8		Bushing		1
9	2210500	Planetary gear assembly, 2nd step	16 fpm	1
9	2210520	Planetary gear assembly, 2nd step	32 fpm	1
10		Planet carrier		1
11		Brass washer		
12		Self lubricating bushing		3
13		Planet wheel		3
14		Retaining ring		6
15	2210503	Pinion 2nd step		1
16	2210510	Planetary gear assembly, 1st step		1
17		Planet carrier		1
18		Self lubricating bushing		3
19		Planet wheel		3
20	2210503	Pinion 1st step		1
	2219982	Metal sealing ring set	=22+23+24	1
21		Circlip		1
22		O-ring		1
23		Bearing		1
24		Metal sealing ring set		1
25	2211000	Complete brake & slip clutch assy	380-480V	1
25	2211012	Complete brake & slip clutch assy	200-240V	1
25	2211013	Complete brake & slip clutch assy	500-575V	1
26		Screw		3
27		Friction and anchor disk		1
28	2211018	Slip clutch friction disk assembly		1
29		Lipseal		1
30		Brake pressure disk		1
31		Brake cap		1
32		Brake spring		1
33		Coil assembly		1
	2211014	Slip clutch spring set (1Bm)	=1+34+34+34+37+35+1	1
	2211015	Slip clutch spring set (2m)	=1+34+34+34+37+35+1	1
34		Limiter spring		1
34		Limiter spring		1
35		Washer		1

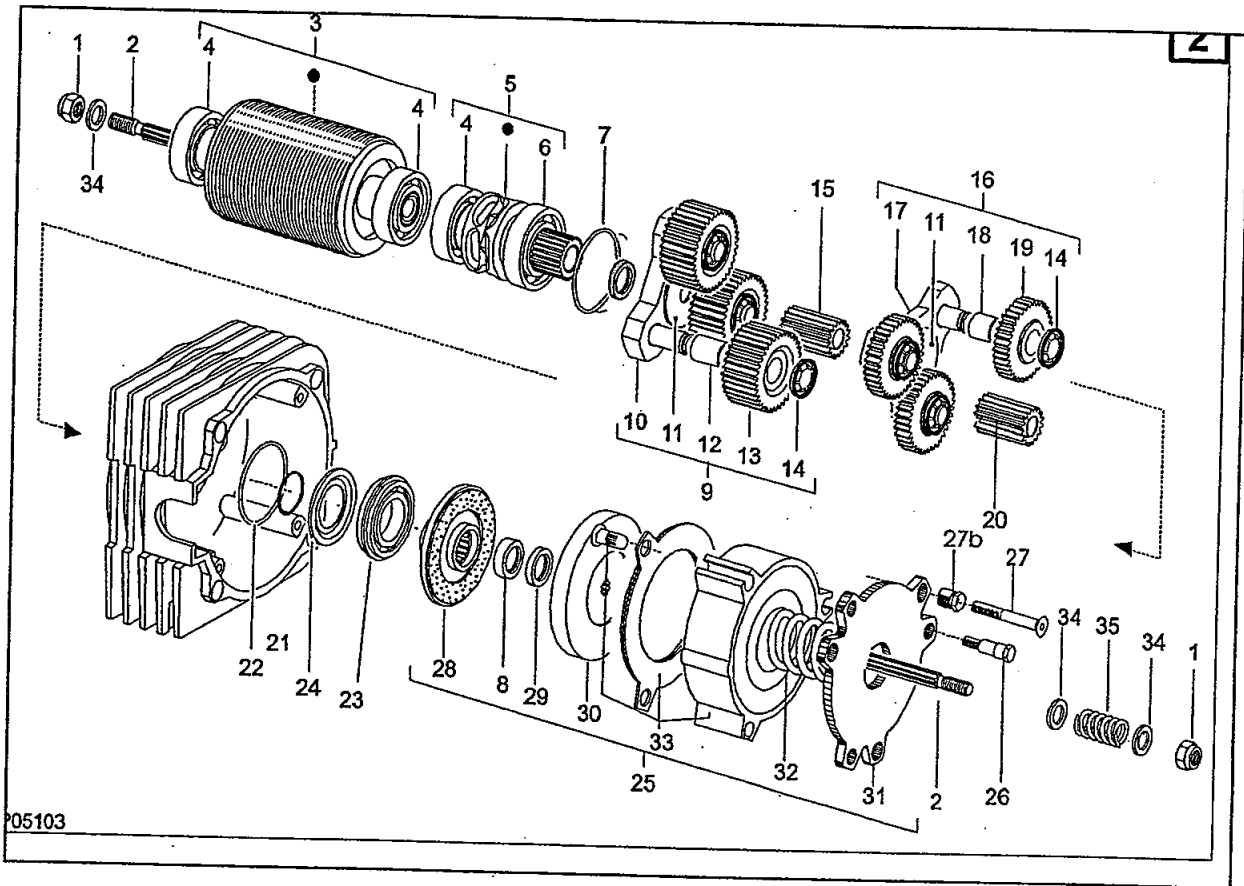


R&M

MATERIALS HANDLING

LoadMate Chain Hoist
LM5 Spare Parts
Revision 3

Gear Mechanism & Version 2a Brake



Version 2a brake has been replaced by Version 2b brake, which are interchangeable. Version 2 brake is not interchangeable with Version 1 brake.



R&M

MATERIALS HANDLING

www.rmandm.com

LoadMate Chain Hoist

LM5 Spare Parts

Revision 3

Gear Mechanism & Version 2a Brake

Item	Part Number	Description	Comments	Qty
1		Self locking nut		2
2	2211501	Gear input shaft set		1
3	2215000	Rotor assembly	Two speed	1
3	2215001	Rotor assembly	Single speed	1
4		Bearing		1
5	2214001	Chain sprocket set assembled		1
	2219983	Sprocket equipment		1
6		Bearing		1
7		Bushing		1
8		Bushing		1
9	2210500	Planetary gear assembly, 2nd step	16 fpm	1
9	2210520	Planetary gear assembly, 2nd step	32 fpm	1
10		Planet carrier		1
11		Brass washer		
12		Self lubricating bushing		3
13		Planet wheel		3
14		Retaining ring		6
15	2210503	Pinion 2nd step		1
16	2210510	Planetary gear assembly, 1st step		1
17		Planet carrier		1
18		Self lubricating bushing		3
19		Planet wheel		3
20	2210503	Pinion 1st step		1
	2219984	Metal sealing ring set	=21+22+23+24	1
21		Circlip		1
22		O-ring		1
23		Bearing		1
24		Metal sealing ring set		1
25	2211070	Complete brake & slip clutch assy	380-480V	1
25	2211071	Complete brake & slip clutch assy	200-240V	1
25		Complete brake & slip clutch assy	500-575V	1
26		Screw		3
27		Screw		3
27b		Adjustment nut		3
28	2211018	Slip clutch friction disk assembly	=8+28+29	1
29		Lipseal		1
30	2211020	Brake pressure disk		1
31	2211026	Anchor disk		1
32	2211021	Brake spring		1
33	2211023	Coil assembly 190Vdc	200-240V	1
33	2211024	Coil assembly 100Vdc	380-480V	1
33	2211025	Coil assembly 240Vdc	500-600V	1
	2211016	Slip clutch spring set	=1+34+34+34+37+35+1	1
34		Washer		3
35		Limiter spring		1
36	2211022	Friction disk		1

R&M Materials Handling, Inc. | 4501 Gateway Boulevard | Springfield, Ohio 45502 | PH: 1-937-525-5100 | FAX: 1-937-325-5319

08/17/01

7

RM-LM5-SPARE-1000-3-ENG.doc



R&M

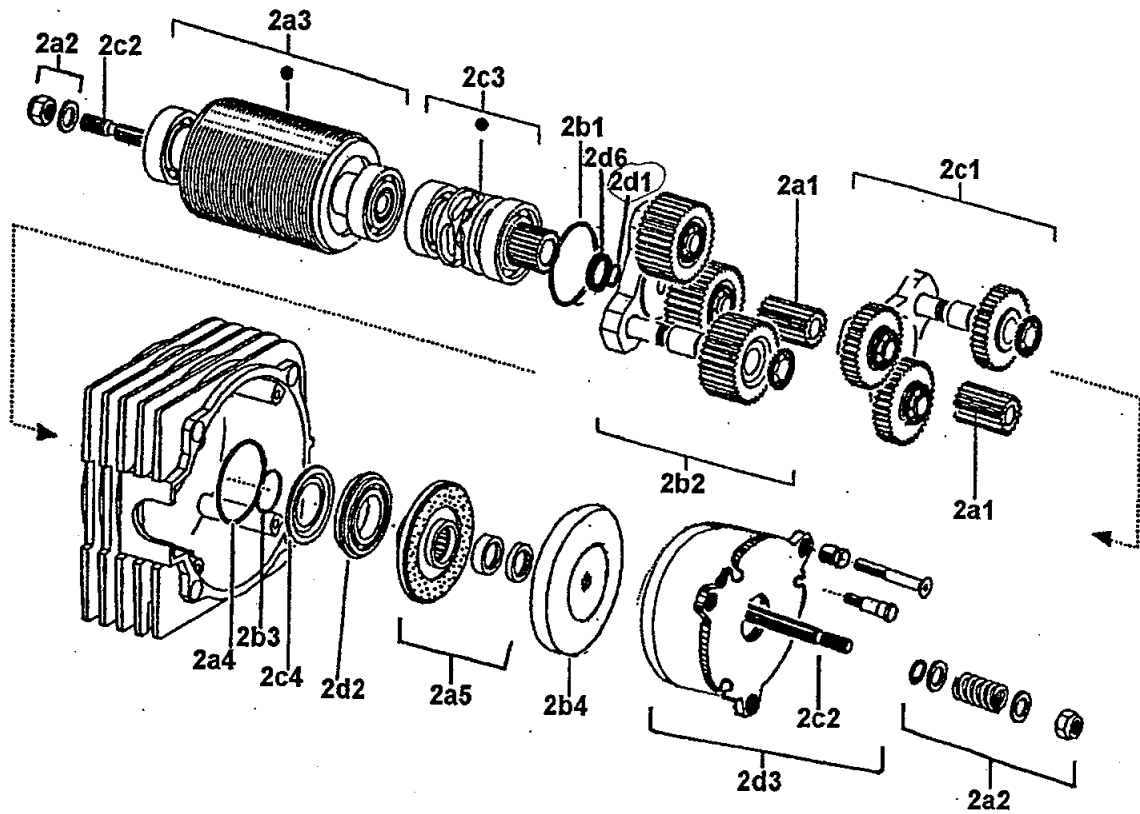
MATERIALS HANDLING

LoadMate Chain Hoist

LM5 Spare Parts

Revision 3

Gear Mechanism & Version 2b Brake





R&M

MATERIALS HANDLING

LoadMate Chain Hoist

LM5 Spare Parts

Revision 3

Gear Mechanism & Brake Version 2b

Item	Part Number	Description	Comments	Qty	
2a1	2210503	Pinion		1	
2a2	2211016	Limiter spring set		1	
2a3	2215000	2 speed rotor assembly	Two speed	1	
2a3	2215001	1 speed rotor assembly-1800 rpm	Single speed	1	
2a3	2215055	1 speed rotor assembly-3600 rpm	Single speed	1	
2a4	8384702	O-ring 2 x 47-NB70		1	
2a5	2211018	Clutch disc set-number 2		1	
2b1	300077	Circlip 47 x 1.75		1	
2b2	2210500	Planetary gear assy-2nd reduction	16 fpm	1	
2b2	2210520	Planetary gear assy-2nd reduction	32 fpm	1	
2b3	8262501	Retaining ring		1	
2b4	2211020	Clutch disc set-number 1		1	
2c1	2210510	Planetary gear assy-1st reduction		1	
2c2	2211501	Gear input shaft		1	
2c3	2214001	Chain sprocket assy		1	
2c4	8182543	Metal seal ring		1	
2d1	8381806	Lip seal		1	
2d2	833706	Ball bearing		1	
2d3	2211081	Coil assembly 190VDC	380-480V	1	
2d3	2211080	Coil assembly 100VDC	200-240V	1	
2d3	2211082	Coil assembly 240VDC	500-600V	1	
2d6	8552528	Sprocket tube		1	



R&M

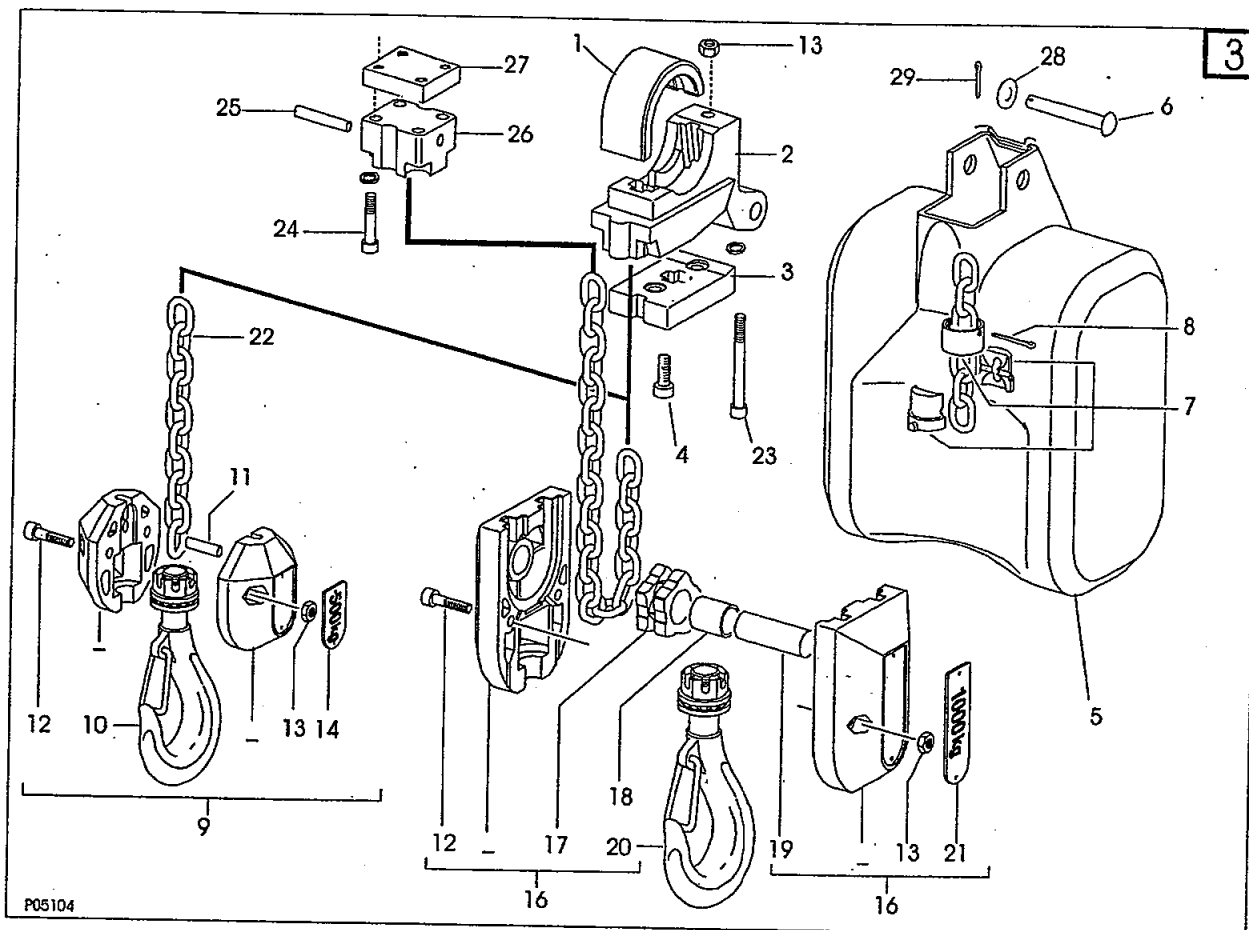
MATERIALS HANDLING

LoadMate Chain Hoist

LM5 Spare Parts

Revision 3

Lifting Assembly





Lifting Assembly

Item	Part Number	Description	Comments	Qty	
1	2214011	Upper chain guide		1	
2	2214014	Lower chain guide assy	=2+3+4+4+13+23	1	
3	2214013	Rubber plate set		1	
4		Screw		2	
5	2219999	Chain bucket (25ft) & hardware	=5+6+28+29	1	
5	2249985	Chain bucket (50ft) & hardware	=5+6+28+29	1	
5	2249986	Chain bucket (75ft) & hardware	=5+6+28+29	1	
5	2249987	Chain bucket (150ft) & hardware	=5+6+28+29	1	
6		Suspension pin		1	
7	2211050	Slack fall stop assembly	=8	1	
8		Split pin		1	
9	2219997	Hook block complete-1 fall	=10+11+12+13+14+15+16	1	
10	2212011	Hook assembly-1 fall		1	
10a	001512	Safety latch (1 fall)		1	
11		Shaft		1	
12		Screw		2	
13		Self locking nut		2	
14	2213308001	Self adhesive load plate - 1/4 ton	1 fall	2	
14	2213308002	Self adhesive load plate - 1/2 ton	1 fall	2	
14	2213308003	Self adhesive load plate - 1 ton	1 fall	2	
14	2213308006	Self adhesive load plate - 1/8 ton	1 fall	2	
14	2213308008	Self adhesive load plate - 250 kg	1 fall	2	
14	2213308009	Self adhesive load plate - 500 kg	1 fall	2	
14	2213308010	Self adhesive load plate - 1000 kg	1 fall	2	
16	2219998	Hook block complete-2 fall		1	
17	2214003	Idler sprocket assembly		1	
18		Self lubricating bushing		1	
19		Shaft		1	
20	2217004	Hook assembly-2 fall		1	
20a	001515	Safety latch (2 fall)		1	
21	2213308014	Self adhesive load plate - 1/2 ton	2 fall	2	
21	2213308004	Self adhesive load plate - 1 ton	2 fall	2	
21	2213308005	Self adhesive load plate - 2 ton	2 fall	2	
21	2213308015	Self adhesive load plate - 500 kg	2 fall	2	
21	2213308011	Self adhesive load plate - 1000 kg	2 fall	2	
21	2213308012	Self adhesive load plate - 2000 kg	2 fall	2	
22	2213500	Load chain 4.8 x 12.5		ar	
23		Screw		1	
	2211045	Chain fitting tooling		1	
	2213523	Chain anchor assembly	=24+25+26+27	1	
24		Screw + washer		4	
25		Dowel		1	
26		Chain anchor		1	
27		Fixing plate		1	
28		Washer		1	
29		Split pin		1	

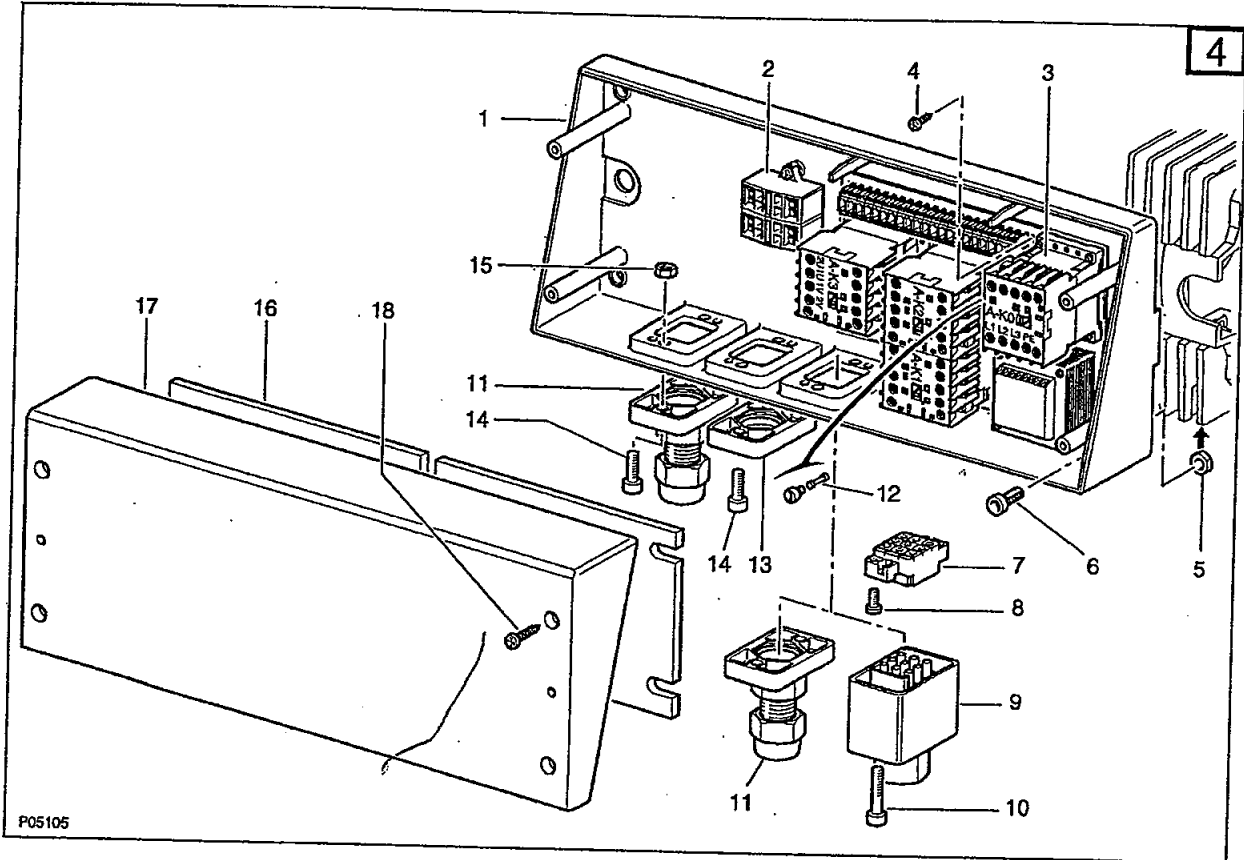


R&M

MATERIALS HANDLING

LoadMate Chain Hoist
LM5 Spare Parts
Revision 3

Controls





Controls

Item	Part Number	Description	Comments	Qty	
1	2219963	Control box base & hardware	=1+5+6	1	
2	7383020	Ground PE terminal board		1	
2	2219092	Hour counter		1	
3	2213017	PC board 208/230/460V/60Hz/110V	Two speed	1	
3	2213018	PC board 208/230/460V/60Hz/110V	Single speed	1	
3	2213016	PC board 575V/60Hz/110V	Two speed	1	
4		Screw		5	
5		Stop nut		4	
6		Screw		4	
7	7285039	Female connector + wire harness	Pushbutton pendant	1	
8	8090411	Plastic screw		2	
	2249946	Plug set for trolley		1	
	2249982	Plug set for power supply		1	
9		Plug		1	
10		Screw		2	
11	2219808	Cable gland set 2249947		1	
12	833130	Fuse		1	
13a	2219814	Closing plate set		1	
13		Closing plate		1	
14		Screw		4	
15		Nut		4	
16		Counterweight		1	
17	2213001	Control box cover, cwt. & screw	=16+17+18	1	
18		Screw		4	
	2218000	Pendant suspension set		1	



R&M

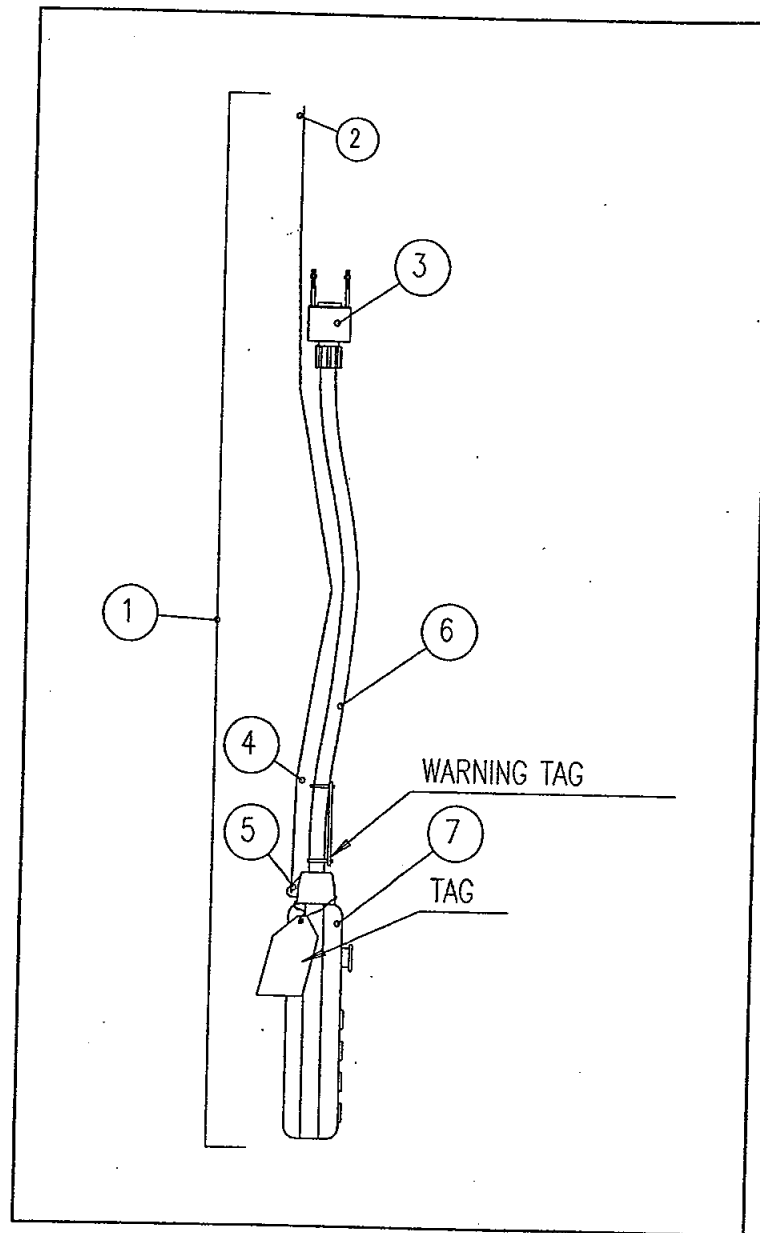
MATERIALS HANDLING

Pushbutton

LoadMate Chain Hoist

LM5 Spare Parts

Revision 3





Pushbutton

Item	Part Number	Description	Comments	Qty	
1	2309673010	E-stop, SS Hoist pendant assy	10 ft hoist lift	1	
1	2309673015	E-stop, SS Hoist pendant assy	15 ft hoist lift	1	
1	2309673020	E-stop, SS Hoist pendant assy	20 ft hoist lift	1	
1	2309674010	E-stop, TS Hoist pendant assy	10 ft hoist lift	1	
1	2309674015	E-stop, TS Hoist pendant assy	15 ft hoist lift	1	
1	2309674020	E-stop, TS Hoist pendant assy	20 ft hoist lift	1	
1	2309675010	E-stop, SS Hoist, TS Trolley pendant	10 ft hoist lift	1	
1	2309675015	E-stop, SS Hoist, TS Trolley pendant	15 ft hoist lift	1	
1	2309675020	E-stop, SS Hoist, TS Trolley pendant	20 ft hoist lift	1	
1	2309675010	E-stop, TS Hoist, TS Trolley pendant	10 ft hoist lift	1	
1	2309675015	E-stop, TS Hoist, TS Trolley pendant	15 ft hoist lift	1	
1	2309675020	E-stop, TS Hoist, TS Trolley pendant	20 ft hoist lift	1	
2	2218000	Upper suspension kit		1	
3	2219812	Plug kit		1	
4	2212752001	Strain relief cable		1	
5	2212753001	Suspension unit		1	
6	RPC1612	Electrical cable		1	
7	2212932011	E-stop, SS Hoist pushbutton assy		1	
7	2212932012	E-stop, TS Hoist pushbutton assy		1	
7	2212932032	E-stop, SS Hoist, TS Trolley pushbutton		1	
7	2212932033	E-stop, TS Hoist, TS Trolley pushbutton		1	

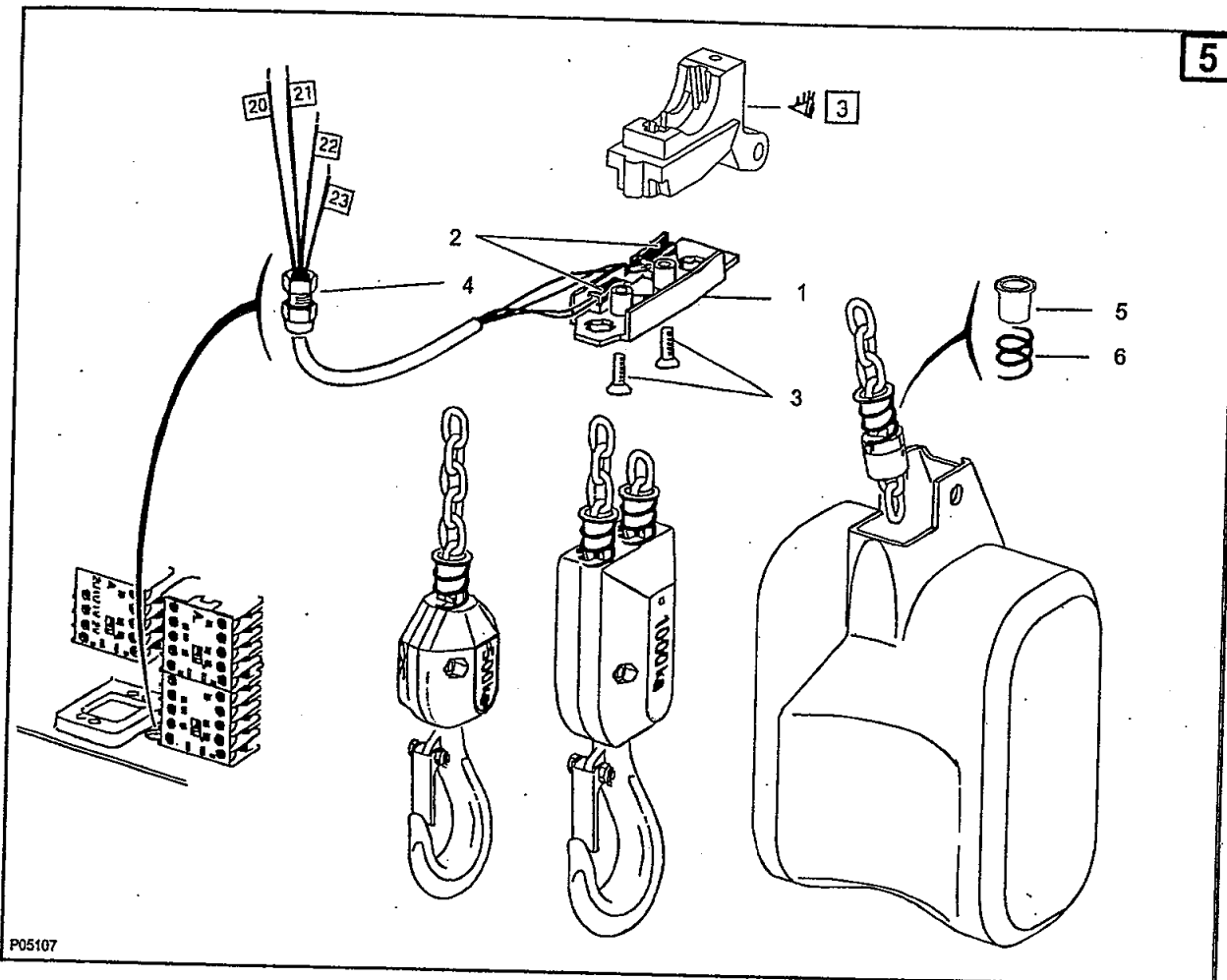


R&M

MATERIALS HANDLING

LoadMate Chain Hoist
LM5 Spare Parts
Revision 3

Upper & Lower Limit Switch



P05107

Item	Part Number	Description	Comments	Qty	
	2213059	Complete limit switch	=1+2+3+4+5+6	1	
1		Switch plate		1	
2		Switch set		1	
3		M8 x 25 screw		1	
4		Cable gland		1	
5	2219002	Spring plate	1 fall/2 fall	2/3	
6	2219003	Spring	1 fall/2 fall	2/3	