

VMC650BP3

Mechanical Parts Manual

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VMC650BP3 Oil Lubrication

Drawing No. M-650R0011

Aug 9-06

Dwg ID	Part No.	Description	Qty.
1	MV-5	Metering Valve # 5 X Ballscrew	1
2	MV-2	Metering Valve # 2 X Slideway	1
3	MV-2	Metering Valve # 2 X Slideway	1
4	MV-2	Metering Valve # 2 X Slideway	1
5	MV-2	Metering Valve # 2 X Slideway	1
6	MV-2	Metering Valve # 2 X Slideway	1
7	MV-2	Metering Valve # 2 X Slideway	1
8	MV-2	Metering Valve # 2 X Slideway	1
9	MV-2	Metering Valve # 2 X Slideway	1
10	MV-2	Metering Valve # 2 X Slideway	1
11	MV-2	Metering Valve # 2 X Slideway	1
12	MV-2	Metering Valve # 2 X Slideway	1
13	MV-2	Metering Valve # 2 X Slideway	1
14	MFE 5017-T4P	Lubrication Unit	1
15	MV-5	Metering Valve # 5 Y Ballscrew	1
16	MV-2	Metering Valve # 2 X Slideway	1
17	MV-2	Metering Valve # 2 X Slideway	1
18	MV-1	Metering Valve # 1 X End Bearing	1
19	MV-2	Metering Valve # 2 Y Slideway	1
20	MV-2	Metering Valve # 2 Y Slideway	1
21	MV-2	Metering Valve # 2 Y Slideway	1
22	MV-2	Metering Valve # 2 Y Slideway	1
23	MV-2	Metering Valve # 2 Y Slideway	1
24	MV-1	Metering Valve # 1 X End Bearing	1
25	MV-2	Metering Valve # 2 Y Slideway	1
26	MV-3	Metering Valve # 3 Y End Bearing	1

Dwg ID	Part No.	Description	Qty.
1	sml-1000-01A	Door Front Left	1
1A	sml-1000-02A	Door Front Right	1
2	sml-1000-03A	Door Handles	2
3	sml-1000-04A	Polycarbonate Window 930x285x6	2
4	sml-1000-05A	Z Cover Front	1
5	sml-1000-06A	Z Cover Left	1
6	sml-1000-07A	Z Cover Right	1
7	sml-1000-08A	Electrical Track Junction Box	1
8	sml-1000-09A	Coolant Tank	1
9	sml-1000-10A	Swarf Conveyor	1
10	sml-1000-11A	Swarf Cart	1
11	sml-1000-12A	Oil Seperator Unit	1
12	sml-1000-13A	Mounting Plate	1
13	sml-1000-14A	Motor Mount	1
14	sml-1000-15A	Drip Trough	1
15	sml-1000-16A	Skimmer Plate	1
16	sml-1000-17A	Skimmer Wheel	1
17	sml-1000-18A	Base Tray	1
18	sml-1000-19A	Left Side Fixed Guard	1
19	sml-1000-20A	Left Side Fixed Door	1
20	sml-1000-21A	Side Guard Window 665x390x6	2
21	sml-1000-22A	Right Side Fixed Guard	1
22	sml-1000-23A	Right Side Fixed Door	1
23	sml-1000-24A	Operation Panel Box	1
24	sml-1000-25A	Storage door	1
25	sml-1000-26A	Left Side Guard Support	2
26	sml-1000-27A	Right Side Guard Support	2
27	sml-1000-28A	Rear Guard	1
28	sml-1000-29A	Rear Access Door	1
29	sml-1000-30A	Electrical Cabinet Brackets	4
30	sml-1000-31A	Left Side Cabinet	1
31	sml-1000-32A	Left Cabinet Door	1
32	sml-1000-33A	Right Side Cabinet	1
33	sml-1000-34A	Right Cabinet Door	1
34	sml-1000-35A	Electrical Track Junction Box (rear)	1
35	sml-1000-36A	Oil / Water Seperator	1
36	sml-1000-37A	CrossBeam	1

Dwg ID	Part No.	Description	Qty.
1	sml-1000-01B	Door Front Left	1
2	sml-1000-02B	Door Front Right	1
3	sml-1000-03B	Polycarbonate Window 930x285x6	2
4	sml-1000-04B	Door Handles	2
5	sml-1000-05B	CrossBeam	1
6	sml-1000-06B	Door Track	1
7	sml-1000-07B	Stainless Steel Cover Strip	1
8	sml-1000-08B	Z Cover Front	1
9	sml-1000-09B	Z Cover Right	1
10	sml-1000-10B	Z Cover Left	1
11	sml-1000-11B	Electrical Track Junction Box (front)	1
12	sml-1000-12B	Electrical Track Junction Box (rear)	1
13	sml-1000-13B	Base Tray	1
14	sml-1000-14B	Coolant Tank	1
15	sml-1000-15B	Swarf Conveyor	1
16	sml-1000-16B	Swarf Cart	1
17	sml-1000-17B	Mounting Plate	1
18	sml-1000-18B	Motor Mount	1
19	sml-1000-19B	Drip Trough	1
20	sml-1000-20B	Skimmer Plate	1
21	sml-1000-21B	Skimmer Wheel	2
22	sml-1000-22B	Oil Seperator Unit	1
23	sml-1000-23B	Right Side Fixed Guard	1
24	sml-1000-24B	Fixed Door	2
25	sml-1000-25B	Window Frame	2
26	sml-1000-26B	Storage door	1
27	sml-1000-27B	Pivit Assembly Upper	1
28	sml-1000-28B	Pivit Assembly Lower	1
29	sml-1000-29B	Operation Panel Box	1
30	sml-1000-30B	Display Mounting Frame	4
31	sml-1000-31B	Left Side Fixed Guard	1
32	sml-1000-32B	Side Guard Window 530x335x6	2
33	sml-1000-33B	Rear Guard	1
34	sml-1000-34B	Rear Access Door	1
35	sml-1000-35B	Electrical Cabinet	1
36	sml-1000-36B	Electrical Cabinet Door	1
37	sml-1000-37B	Oil / Water Seperator	1
38	sml-1000-37B	Side Skirt	2

Dwg ID	Part No.	Description	Qty.
1	M-650R0041	Saddle Casting	1
2	L-450R0151	Ballscrew Mounting Casting	1
3	6#X50	Tapered Pin	2
4	8-10*45	Cap Screw M10 x 25	4
5	8-M10	M10 Spring Washer	4
6	M-650S0011	X Axis Limit Switch Mount	1
7	8-6*20	Cap Screw M6 x 20	2
8	8-102003	M6 Spring Washer	2
9	8-101001	M6 Flat Washer	2
10	LA-1001	Limit Switch	1
11	8-6*20	Cap Screws M6 x 20	2
12	8-102003	M6 Spring Washer	2
13	AK-2704AR.B	Cover Guide (Left Rear, Right Front)	2
14	8*6-16	Cap Screw M6 x 16	12
15	8-102003	M6 Spring Washer	12
16	8-101001	M6 Flat Washer	12
17	AK-2704AL.B	Cover Guide (Front)	2
18	AK-2704AL.B	X Axis Way Cover Left	1
19	8*6-16	Cap Screw M6 x 16	10
20	8-102003	M6 Spring Washer	10
21	8-101001	M6 Flat Washer	10
22	AK-2704AR.B	X Axis Way Cover Right	1
23	CIY4	Lock Nut M25 x 1.5P YSF	1
24	M-650R0421	Spacer	1
25	M-650R0111	Bearing Housing	1
26	8-8*20A	Cap Screw M8 x 20	6
27	6#X50	Tapered Pin # 6 x 50	2
28	TC-32*48*8	Seal 32x48x8	1
29	M-850R0172	Bearing Housing Cap	1
30	8*6-16	Cap Screw M6 x 16	6
31	M-650R0061	R32-10B2-FDV-935-1195-0.008	1

Dwg ID	Part No.	Description	Qty.
32	9-10*25	Cap Screw M10 x 25	4
33	M-850R0172	Bearing Housing Cap	1
34	8*6-16	Cap Screw M6 x 16	6
35	TC-32*48*8	Seal 32x48x8	1
36	M-650R0111	Bearing Housing	1
37	6#X50	Tapered Pin # 6 x 50	2
38	8-8*20A	Cap Screw M8 x 20	6
39	M-650R0421	Spacer Ring	1
40	CIY4	Lock Nut M25 x 1.5P YSF	1
41	ADS60-2	Motor Coupling Siemens	1
42	1FK7063-5AF71-1AG3	Siemens Y Axis Feed Motor	1
43	9-12*40	Cap Screws M12 x 40	4
44	8-102009	M12 Spring Washer	4
45	8-6T	M12 Flat Washer	4
46	M-650R0051	Table Casting	1
47	M-650S0081	Striker Bracket Left	1
48	8*6-16	Cap Screw M6 x 16	2
49	8-101001	M6 Spring Washer	2
50	M-850R0441	Reference Striker	1
51	8-5*8	Cap Screw M5 x 8	2
52	M-650S0091	Striker Bracket Right	1
53	8*6-16	Cap Screw M6 x 16	2
54	8-101001	M6 Spring Washer	2
55	M-850R0442	E Stop Striker right	2
56	8-5*8	Button Head Screws M5 x 8	4
57	L-450R0141	Ballscrew Mounting Casting	1
58	6#X50	Tapered Pin	2
59	9-10*25	Cap Screw M10 x 25	4
60	8-M10	M10 Spring Washer	4

Dwg ID	Part No.	Description	Qty.
61	M-650R0151	Gib Retainer Front	1
62	9-12*45	Hex Bolts M12 x 45	5
63	8-102009	M12 Spring Washer	5
64	M-850R0301	M8 Gib Screw	1
65	M-650R0181	Tapered Gib Horizontal	2
66	M-650R0171	Tapered Gib Vertical	1
67	M-850R0151	Cover Strip	1
68	M-850R0151	Button Head Screws M6 x 10	2
69	M-650R0161	Gib Retainer Rear	1
70	9-12*45	Hex Bolts M12 x 45	5
71	8-102009	M12 Flat Washer	5
72	M-850R0301	M8 Gib Screw	4
73	8-6*8	1/8" PT fitting	2
74	M-650S0141	Cover Strip	2
75	8-6*12	Button Head Screws M6 x 12	4
76	M-650R0321	Way Wiper Front Right / Rear Left	2
77	8-6*12	Button Head Screws M6 x 12	10
78	M-650R0331	Way Wiper Front Left / Rear Right	2
79	8-6*12	Button Head Screws M6 x 12	10
80	8*6-16	Button Head Screws M6 x 16	8
81	C30	Bearings C30TAC62B	6

Dwg ID	Part No.	Description	Qty.
1	M-650R0011	Base Casting	1
2	M1000R0231	Leveling Screw M30 x 100	10
3	M1000R0241	Screw Lock Nut 1.5mm pitch	10
4	M850R0251	Leveling Pad	10
5	M1000S2041	Limit Striker Bracket	2
6	8-100302	Button Head Screw M6 x 12	4
7	8-101001	Flat Washer M6	4
8	M-850R0441	Limit Striker	1
9	8-100302	Button Head Screw M6 x 16	2
10	M-850R0442	Limit Striker	2
11	8-100302	Button Head Screw M6 x 16	4
12	AK-2701A.B	Cover Guide Left	1
13	8*6-16	Cap Screw M6 x 16	6
14	8-102003	Spring Washer M6	6
15	8-101001	Flat Washer M6	6
16	AK-2702A	Cover Guide Right	1
17	AK-2701A.B	Y Slideway Cover Front	1
18	8*6-16	Cap Screw M6 x 16	16
19	8-102003	Spring Washer M6	16
20	8-101001	Flat Washer M6	16
21	AK-2702A	Y axis Slideway Cover Rear	1
22	8*6-16	Cap Screw M6 x 16	8
23	8-102003	Spring Washer M6	8
24	8-101001	Flat Washer M6	8
25	M-650R0111	Bearing Housing	1
26	6#X50	Tapered Pin # 6 x 50	2
27	8-8*20A	Cap Screw M8 x 16	6
28	C30	Bearings C30TAC62B	3
29	TC-32*48*8	Seal 32 x 48 x 8	1
30	M-850R0172	Seal Retainer Plate	1
31	8*6-16	Cap Screw M6 x 16	6

Dwg ID	Part No.	Description	Qty.
32	M-650R0421	Spacer	1
33	CIY4	Lock Nut	1
34	TC-32*48*8	Seal 32 x 48 x 8	1
35	M-650R0141	Bearing Housing Casting	1
36	6#X50	Tapered Pin # 6 x 50	2
37	9-12*40	Cap Screw M12 x 40	4
38	8-102009	Spring Washer M12	4
39	L-450R0241	Poly Soft Stop	1
40	8*6-16	Cap Screw M6 x 16	2
41	M-650R0071	R32-10B2-FDV-755-1030-0.008	1
42	9-10*25	Cap Screw M10 x 25	4
43	L-450R0241	Poly Soft Stop	1
44	8*6-16	Cap Screw M6 x 16	2
45	TC-32*48*8	Seal 32 x 48 x 8	1
46	M-650R0122	Motor Mounting Casting	1
47	9-12*40	Cap Screw M12 x 40	6
48	8-102009	Spring Washer M12	6
49	6#X50	Tapered Pin # 6 x 50	2
50	M-650S0031	Cover Plate	1
51	8-5*16	Button Head Screws M6 x 10	4
52	C30	Bearings C30 TAC 62B	3
53	TC-32*48*8	Seal 42 x 52 x 8	1
54	M-850R0172	Retainer Plate	1
55	8*6-16	Cap Screw M6 x 16	6
56	M-650R0421	Spacer	1
57	CIY4	Lock Nut M25 x 1.5P-YSF	1
58	ADS60-2	Motor Coupling	1
59	1FK7063-5AF71-1AG3	Y Axis Feed Motor	1
60	9-12*40	Cap Screw M12 x 40	4

Dwg ID	Part No.	Description	Qty.
61	8-102009	M6 Spring Washer	4
62	M-650R0041	Saddle Casting	1
63	M-650R0301	Way Wiper Front Left / Rear Right	1
64	8-5*16	Cap Screw M6 x 16	14
65	M-650R0311	Way Wiper Front Right / Rear Left	2
66	8-5*16	Cap Screw M6 x 16	14
67	M-650S0021	Switch Bracket	1
68	8*6-16	Cap Screw M6 x 16	2
69	8-102003	Spring Washer M6	2
70	8-101001	Flat Washer M6	2
71	LA-1001	Limit Switch	1
72	8-6*25	Cap Screw M6 x 25	2
73	8-102003	Spring Washer M10	2
74	M-650R0191	Gib Retainer Right	1
75	M-850R0301	M8 Gib Screw	4
76	8-100702	Hex Bolts M12 x 60	5
77	8-102009	Spring Washer M12	5
78	8-6*8	1/8" PT Fitting	2
79	M-650R0221	Gib Horizontal	2
80	M-650S0131	Retaining Plate	2
81	8-6*12	Button Head Screw M6 x 12	4
82	M-650R0201	Y Axis Keeper Plate Right	1
83	M-650R0211	Gib Vertical	1
84	M-650S0121	Retaining Plate	1
85	8-6*12	Button Head Screw M6 x 12	1
86	M-850S0141	Limit Striker Mounting Plate	1

Dwg ID	Part No.	Description	Qty.
1	M-650R0021	Z Axis Column Casting	1
2	8-24*90	Hex Screw M24 x 90	6
3	9-M24	M24 Spring Washer	6
4	M-650S0051	Switch Bracket	1
5	8*6-16	Cap Screw M6 x 16	2
6	8-102003	M6 Spring Washer	2
7	8-101001	M6 Flat Washer	2
8	LA-1001	SNO2D12-502-MC1688	1
9	8*6-16	Cap Screw M6 x 16	2
10	8-102003	M6 Spring Washer	2
11	8-M6	Hex Nut 6mm	2
12	8-101001	M6 Flat Washer	2
13	AK-2703A.B	Z Slideway Cover Bracket (Left)	2
14	8*6-16	Cap Screw M6 x 16	4
15	AK-2703A.B	Slideway Cover	1
16	8*6-16	Cap Screw M6 x 16	5
17	8-101001	M6 Spring Washer	5
18	1FK7063-5AF71-1AH3	Z Axis Feed Motor Siemens	1
19	9-12*40	Cap Screw M12 x 40	4
20	8-102009	M12 Spring Washer	4
21	ADS60-2	Motor Coupling Siemens	1
22	CIY4	Lock Nut	1
23	M-650R0421	Spacer Ring	1
24	M-850R0172	Bearing Housing Cap	1
25	8*6-16	Cap Screw M6 x 16	6
26	TC-32*48*8	Seal 32 x 48 x 8	1
27	C30	Bearings C30TAC62B	3
28	M-650R0371	Motor Mounting Casing	1
29	9-12*40	Cap Screw M12 x 40	6
30	8-102009	Spring Washer M12	6
31	6#50	Pin #6 x 50L	2

Dwg ID	Part No.	Description	Qty.
32	M-650S0031	Cover Plate	1
33	8-5*16	Button Head Screw M6 x 10	4
34	TC-32*48*8	Switch Mounting Plate	1
35	L-450R0241	PU Soft Stop	1
36	8*6-16	Cap Screw M6 x 16	2
37	M-650R0081	Ballcrew R32-10B2-FDV-735-1010-.008	1
38	9-10*25	Cap Screw M10 x 25	4
39	L-450R0241	PU Soft Stop	1
40	8*6-16	Cap Screw M6 x 16	2
41	TC-32*48*8	Seal 42 x 52 x 8	1
42	M-650R0141	Ballscrew Housing Casting	1
43	9-12*40	Cap Screw M12 x 40	4
44	8-102009	Spring Washer M12	4
45	6#X50	Pin #6 x 50L	2
46	M-850R0172	Bearing Housing Cap	1
47	8*6-16	Cap Screw M6 x 16	6
48	C30	Bearing 30TAC62B	3
49	TC-32*48*8	Seal 42 x 52 x 8	1
50	M-650R0111	Bearing Housing	1
51	6#X50	Pin #6 x 50L	2
52	8-105006	Cap Screw M8 x 16	6
53	M-650R0421	Spacer	1
54	CIY4	Lock Nut	1
55	M-650R0031	Z Axis Casting	1
56	M-850R0281	Tension Block	2
57	8-105006	Cap Screw M8 x 16	4
58	8-104101	M8 Nut	2
59	9-8*40	Set Screw M8 x 40	2
60	M-650R0321	Way Wiper (Upper Left, Lower Right)	2

Dwg ID	Part No.	Description	Qty.
61	8-5*16	Button Head Screw M5 x 16	10
62	M-650R0331	Way Wiper (Upper Right, Lower Left)	2
63	8-5*16	Button Head Screw M6 x 12	10
64	M-850S0151	Upper Striker Bracket	1
65	M1000S2051	Lower Striker Bracket	1
66	CG15B	Cap Screw M5 x 12	4
67	8-102003	Flat Washer M6	4
68	M-850R0441	Limit Striker	1
69	8-100302	Cap Screw M6 x 16	2
70	M-850R0442	Limit Striker	2
71	8-100302	Cap Screw M6 x 16	4
72	M-850R0361	Aluminium Air / Water Manifold	1
73	8-6*35	Cap Screw M6 x 35	2
74	3/8PP	Air Fitting	1
75	YX-A0001	Tail Piece	1
76	9-12*16	Plug M12 x 16	1
77	YW001001	Valve	3
78	Hj-3001	Snap Lock Outlets	3
79	M-650R00231	Keeper Plate Left	1
80	M-850R0301	Gib Screw	4
81	9-12*45	Hex Bolts M12 x 45	10
82	M-650R0261	Gib Left side	2
83	M-650S0131	Retainer Plate	2
84	8-6*12	Cap Screw M6 x 12	4
85	M-650R0251	Gib Left Side (Side)	1
86	M-650S0121	Retainer Plate	1
87	8-6*12	Cap Screw M6 x 12	2
88	M-650R0241	Keeper Plate Right	1
89	1PH7103-2NG02-0LJ0	Spindle Motor Siemens	1
90	9-12*30	Cap Screw M12 x 30	4

Dwg ID	Part No.	Description	Qty.
91	8-102009	Spring Washer M12	4
92	M-650R0381	Spindle Mounting Plate	1
93	9-12*40	Cap Screw M12 x 40	4
94	8-102009	Spring Washer M12	4
95	8-6T	Flat Washer M12	4
96	N/A		N/A
97	N/A		N/A
98	M-850R0705	Spindle Pulley 68 tooth (1:1)	1
99	N/A		N/A
100	5GT-810-35	Pulley Belt	1
101	SCE 20-38*65	Pulley Taper Lock	1
102	M00072	Drawbar Cylinder	1
103	8-10*40	Cap Screw M10 x 40	4
104	8-M10	Spring Washer M10	4
105	N/A		N/A
106	M-850R0352	Cylinder Mounting Plate	1
107	8-100718	Cap Screw M12 x 35	4
108	8-102009	Spring Washer M12	4
109	N/A		N/A
110	N/A		N/A
111	H1000R1141	Stand Off	4
112	N/A		N/A
113	N/A		N/A
114	N/A		N/A
115	V5P-120	Spintech BT 40 8,000rpm Spindle	1
115 A	V5T-120	Spintech BT 40 10,000rpm Spindle	1
115 B	CF-3D	Spintech BT 40 12,000rpm Spindle	1
115 C	CF-3B	Spintech ISO 40 8,000rpm Spindle	1
115 D	V5T3	Spintech ISO 40 10,000rpm Spindle	1
115 E	CF-3F	Spintech ISO 40 12,000rpm Spindle	1
115 F	CF-30015	Spintech CAT 40 8,000rpm Spindle	1
115 G	CF-3A	Spintech CAT 40 10,000rpm Spindle	1
115 H	CF-3L	Spintech CAT 40 12,000rpm Spindle	1

VMC650BP3 Air Control

Drawing No. H650R0061

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Dwg ID	Part No.	Description	Qty.
1	M028-1	Air Filter / Oiler Unit	1
2	M028-2	Oil Lube Pumps	2
3	M028-3	10mm Air Line	1
4	M028-4	2 Core Control Cable	4
5	M028-5	10mm Air Line	7
6	M028-6	2 Core Control Cable	1
7	M028-7	Exhaust Silencers	2
8	M028-8	M12 Set Screw	1
9	BN-220-0	Blanking Plate	1
10	M028-10	8mm Elbow (Flow Valve)	1
11	M028-11	10mm Elbow	2
12	M028-12	8mm Elbow (Flow Valve)	2
13	M028-13	M12 Set Screw	2
14	M028-14	10mm Elbow	1
15	M028-15	M12 Straight Connector	2
16	M028-16	4 Valve Manifold Block	1
16A	M028-16A	3 Valve Manifold Block	1
17	M028-17	Gland	1
18	M028-18	End Cap	1
19	M028-19	Pressure Switch DWK4B05999	1

VMC650BP3 Air Control

Drawing No. H650R0061

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Dwg ID	Part No.	Description	Qty.
20	M028-20	Brass Reducer	1
21	M028-21	10mm Straight Connector	1
22	M028-22	Oil Lube Container	1
23	M028-23	Water Filter	1
24	M028-24	Hose Barb	1
25	M028-25	Air Isolator Valve	1
26	M028-26	Pressure Gauge	1
27	M028-27	Pressure Adjustment Knob	1
28	M028-28	Bracket	1
29	M028-29	Oil Filler Plug	1
30	M028-30	Oil Flow Adjuster	1
31	M028-31	Oil Sight	1
32	M028-32	Brass Connector	1
33	M028-33	Single Action Solenoid (valves only)	3
34	M028-34	24 vdc Coils (coils only)	3
35	M028-35	Double Action Solenoid Valve	1
36	M028-36	Spindle Air Purge Control Valve	1

Dwg ID	Part No.	Description	Qty.
1	MT416004	Guide Rails	2
2	M18 x 1.25p	Hex Nut	2
3	MT416122	Spacer Ring	2
4	LM355270-UU	Linear Bearing	4
5	R52	C Clip	4
6	CSCA63x20x255	Air Cylinder	1
7	Fotek-FC-1	Reed Switch	1
8	M8 x 1.25p	Hex Bolt	2
9	M6x1.0px8L	Button Head Screw	4
10	VA041000	Sensor Bracket	1
11	M6x1.0px16L	Hex Bolt	2
12	FL7M-3T6HD-R3Z	Sensor	3
13	M6x1.0px16L	Button Head Screw	2
14	MT422401	Mounting Plate	1
15	M8 x 1.25px40L	Hex Bolt	8
16	MT420309	Sheetmetal Guard	1
17	MT420103	ATC Carriage	1
18	MT420336	Tool Magazine Cover	1
19	M5x0.8px12L	Button Head Screw	3
20	MT420305	Sliding Guard	1
21	#10x35L	Bevel Pin	2
22	M10x1.5px40L	Hex Bolt	4
23	MT416008	Fixing Shaft	1
24	MT422404	Lower Press Plate	1
25	M8x1.25px20L	Hex Bolt	4
26	32015	Conical Roller Bearing	2
27	MT420301	Dividing Plate	1
28	M8x1.25px20L	Hex Bolt	6
29	MT420101	Tool Magazine	1
30	MTR560-41U-Y	ATC Motor	1

Dwg ID	Part No.	Description	Qty.
31	M8x1.25px40L	Hex Bolt	4
32	M10x1.5p	Hex Nut	1
33	Spring 10mm	Spring Washer	1
34	CF10	Bearing	1
35	MT416016	Drive Shaft	1
36	MT416014	Bearing Seat	1
37	6004 ZZ	Needle Roller Bearing	2
38	AN04	Bearing Lock Nut	2
39	5GN25K	Gearbox	1
40	M12x1.75px115L	Hex Bolt	1
41	CR010A	Cover	1
42	AN05	Bearing Lock Nut	1
43	51105	Thrust Bearing	2
44	MT420303-1	Rocking Arm	1
45	MT420407	Spacer Ring	1
46	MT420303-2	Rocking Arm	1
47	M5x0.8px30L	Hex Bolt	4
48	MT420406	Connecting Rod	1
49	CF8	Cam Roller	1
50	MT420304	Cam Plate	1
51	M8X1.25P	Hex Nut	1
52	M6 Flat	Flat Washer	3
53	M6x1.0px25L	Hex Bolt	3
54	01-20	Tool Number Plate	20
55	2x8x59x202	Spring	20
56	VA040200	Spring Pin Sleeve (outside)	20
57	M6x1.0px25L	Hex Bolt	20
58	VA040300	Spring Pin Sleeve (inside)	20
59	VA040700	Tool Fixing Block	20
60	M4x0.7px10L	Countersunk Screw	20

