

MACHINE USER MANUAL

OBS SERIES

KOMATSU
コマツ産機株式会社

C O N T E N T S

1.	FOREWORD	0 - 1
2.	SAFETY INFORMATION	0 - 2
2.1	Safety information	0 - 2
2.2	Operation's information symbols	0 - 3
2.3	Units information	0 - 3
2.4	Main specification label	0 - 4
2.5	Specified works	0 - 4
3.	ARRANGEMENT OF PRESS EQUIPMENT	1 - 1
3.1	Arrangement of press equipment	1 - 1

S A F E T Y

4.	GENERAL PRECAUTIONS	2 - 1
5.	PRECAUTIONS FOR INSTALLATION	2 - 3
6.	PRECAUTIONS DURING OPERATION	2 - 4
6.1	Before operation	2 - 4
6.2	Operation machine	2 - 4
7.	PRECAUTIONS FOR DIE CHANGE AND MAINTENANCE	2 - 5
7.1	Before performing maintenance and die change	2 - 5
7.2	Die change and maintenance	2 - 7
8.	SAFETY FEATURES	2 - 9
8.1	Safety keys, plug and Safety block	2 - 9
8.2	Safety distance and the two-hand control / the light guard	2 - 9
9.	LABELS	2 - 12
9.1	Position of safety labels	2 - 12

O P E R A T I O N

12.	PARTS NAMES OF THE PRESS	3 - 1
12.1	Parts names of the press	3 - 1
12.2	Parts names of operating equipments	3 - 2
13.	EXPLANATION OF OPERATING EQUIPMENTS	3 - 4
13.1	Display panel	3 - 4
13.2	Two-hand control and operation panel	3 - 8
14.	OPERATION OF THE PRESS	3 - 15
14.1	Check before turning on the electric power and before you work	3 - 15
14.2	Daily check before starting the main motor and before you work	3 - 19
14.3	Starting the main motor	3 - 20
14.4	Daily check after starting the main motor	3 - 21
14.5	Starting operation	3 - 28
14.6	Stopping operation	3 - 30
14.7	Operation of total counter	3 - 32

14.8	Operation of lot (preset) counter (optional)	3 - 34
14.9	Operation of portable two-hand control and foot switch(optional)	3 - 37
14.10	Load monitor type LOM-ST-2(optional)	3 - 41
15.	ADJUSTMENT	3 - 43
15.1	Slide adjustment	3 - 43
15.2	Ejector	3 - 45
15.3	Adjustment of electronic rotary cam(angle detector)	3 - 51
15.4	Adjustment of slide knockout device (optional)	3 - 54
15.5	Adjustment of the die cushion capacity(optional)	3 - 56
15.6	Set up operation (only variable specification) of press speed	3 - 58
16.	DIE CHANGE	3 - 59
16.1	Die change using manual tools	3 - 59
16.2	Die change using the quick die change system (manual control , optional)	3 - 66
16.3	Die change using the quick die change system (electrical control, optional)	3 - 77
17.	PRECAUTIONS ON PRESS OPERATIONS	3 - 89
17.1	Precautions for blanking	3 - 90
17.2	Precautions for drawing and bending	3 - 90
17.3	Precautions for starting the motor	3 - 90
17.4	Precautions for press protective parts	3 - 90
17.5	Precautions on the die structure	3 - 91
18.	RESET OPERATION	3 - 92
18.1	Reset operation when the EMG. STOP button is depressed	3 - 92
18.2	Reset operation when machine stop due to lowered air pressure	3 - 94
18.3	Reset operation when machine stop due to lowered lubricant pressure	3 - 96
18.4	Reset operation when machine stop (LIGHT GUARD is interrupted)	3 - 98
18.5	Reset operation when machine stop due to the slide adjustment OFF-ON key switch ON while operating	3 -100
18.6	Reset operation when machine stop due to hydraulic overload protector ON	3 -102
18.7	Operation of the main motor reversing device(optional)	3 -104
18.8	Stick release (manual overload release) operation	3 -107

TROUBLE SHOOTING GUIDE

19.	TROUBLESHOOTING	4 - 1
19.1	Troubleshooting	4 - 1
19.2	Reverse operation	4 - 3

MAINTENANCE

20.	GENERAL MAINTENANCE	5 - 1
20.1	Guides to maintenance	5 - 1
20.2	Standard tightening torques for bolts and nuts	5 - 4
20.3	Recommended oil and grease	5 - 5
20.4	Periodic replacement of safety critical parts	5 - 6
21.	INSPECTION AND MAINTENANCE	5 - 8
21.1	Inspection and maintenance table	5 - 8
21.2	Monthly check	5 - 13
21.3	Six month or per 1,000 Hours check	5 - 14
21.4	Annual or per 2,000 Hours check	5 - 22
21.5	Three years check by Komatsu upon order(overhaul)	5 - 44

INSTALLATION

22.	INSTALLATION OF THE PRESS	6 - 1
22.1	Preparation for installation	6 - 1
22.2	Oil supply	6 - 7
23.	AFTER INSTALLATION	6 - 20
23.1	Connection of the shop air line	6 - 20
23.2	Connection of electric power supply	6 - 22
23.3	Check after installation	6 - 24

SPECIFICATION

24.	MACHINE DIMENSIONS	7 - 1
25.	PRESS SPECIFICATIONS	7 - 2
25.1	Press specifications	7 - 2
25.2	Standard equipment table	7 - 6
25.3	Optional device specifications	7 - 7
26.	LIMIT ON WORKING CAPACITY	7 - 11
26.1	Limit on working capacity	7 - 11
26.2	Allowable eccentric capacity	7 - 16
26.3	Number of intermittent strokes	7 - 17