

# S33 CONTROLLER

## PROFESSIONAL 5

### MAINTENANCE DRAWINGS

Document No: V1031I-C1E-X

Edition No.: B



Drawing Number - V1031i-C1E-X01

Revisions	④				MAKINO MAKINO ASIA PTE LTD	TITLE	MACHINE TYPE	V10 S33/S56, APC S33, E33/E56	DRAWING No.	GROUP
	③	APPROVED	02-JUN-2008	SKC MOHANAN		CIRCUIT DRAWING	NC TYPE	FS310is-MA	V1031i-C1E-X01	SHEET No. --1
	②	CHECKED	02-JUN-2008	JANE XING						
①	DRAWN	02-JUN-2008	HOU LIN							

# Table of Contents

PAGE NO.	PAGE DESCRIPTION
--1	CIRCUIT DRAWING
A01	HISTORY OF MODIFICATIONS
B01	GENERAL
B02	Table of contents: (--1 - C20)
B03	Table of contents: (C21 - C50)
B04	Table of contents: (C51 - C80)
B05	Table of contents: (C81 - C110)
B06	Table of contents: (C111 - E07)
B07	Table of contents: (E08 - H08)
B08	S33 CONTROLLER
C01	INPUT POWER SOURCE
C02	EXPORT TRANSFORMER (OPTION)
C03	POWER SOURCE
C04	POWER SOURCE
C05	CONTROL POWER SOURCE
C06	POWER SUPPLY MODULE
C07	SPINDLE AMPLIFIER MODULE - 12K
C08	SPINDLE AMPLIFIER MODULE - 20K (OPTION)
C09	SPINDLE AMPLIFIER MODULE - 30K (OPTION)
C10	SERVO AMPLIFIER CONNECTION
C11	SERVO AMP. CONNECTION WITH 4TH AXIS (OPTION)
C12	SERVO AMP. CONNECTION WITH 4TH & 5TH AXIS (OPTION)
C13	X AND Y SERVO AMPLIFIER MODULE
C14	C AND Z SERVO AMPLIFIER MODULE
C15	Z AXIS MOTOR BRAKE
C16	A AND B SERVO AMPLIFIER MODULE
C17	FEEDBACK SCALE (OPTION)
C18	CONTROLLER UNIT
C19	I/O LINK CONNECTION-STD M/C
C20	I/O MODULE CONNECTION-INTERFACE






# Table of Contents

PAGE NO.	PAGE DESCRIPTION
C81	ATLM-RENISHAW MEASUREMENT TP (OPTION)
C82	ATLM-RENISHAW MEASUREMENT LASER (OPTION)
C83	ATLM LASER BLUM NT MEASUREMENT(OPTION)
C84	ATLM LASER BLUM NT MEASUREMENT(OPTION)
C85	BLUM-Z NANO MEASUREMENT TP(OPTION)
C86	HIGH SPEED SKIP ONLY(OPTION)
C87	WORK WASH (OPTION)
C88	S/G DOOR INTERLOCK (OPTION)
C89	S/G DR & ATC DR UNLOCK SOL.(OPTION)
C90	MAIN OPERATION PANEL(24V for I/O Mod)
C91	MODE SELECTION,FLEXIBLE SWITCHES
C92	ONE TOUCH FUNCTION CONTROL
C93	AXIS SELECT AND INDICATION LED
C94	PUSH BUTTON,INDICATING LAMPS
C95	JOG AND RAPID FEED CONTROL
C96	FEED AND SPINDLE OVERRIDE
C97	MANUAL PULSE GENERATOR
C98	SIGNAL LIGHT/PATROL LIGHT
C99	ATC SHUTTER
C100	LOADER ACCESS DOOR (OPTION)
C101	USER MISCELLANEOUS CONTROL(OPTION)
C102	USER MISCELLANEOUS CONTROL(OPTION)
C103	AIR DRYER (OPTION)
C104	AUTO GREASE(OPTION)
C105	COOLANT CHILLER (OPTION)
C106	MIST COLLECTOR (OPTION)
C107	OIL MIST (OPTION)
C108	AIR CONDITIONER FOR MTC CABINET(OPTION)
C109	HYDRAULIC FIX OPTION (AMF PP)
C110	HYDRAULIC FIX OPTION (YUKEN PP)



# Table of Contents

PAGE NO.	PAGE DESCRIPTION
E08	CONNECTOR TABLE - OP.PANEL
E09	CONNECTOR TABLE - OP.PANEL
E10	CONNECTOR TABLE - OP.PANEL
E11	CONNECTOR TABLE - HYDRAULIC PCB
E12	CONNECTOR TABLE - HYDRAULIC PCB
E13	CONNECTOR TABLE - HARTING TERM. BOX
F01	MACHINE I/O CONFIGURATION
F02	Di/Do ADDRESS TABLE (MACHINE I/O)
F03	Di/Do ADDRESS TABLE (MACHINE I/O)
F04	Di/Do ADDRESS TABLE (MACHINE I/O)
F05	Di/Do ADDRESS TABLE (MACHINE I/O)
F06	Di/Do ADDRESS TABLE (MACHINE I/O)
F07	Di/Do ADDRESS TABLE (MACHINE I/O)
F08	Di/Do ADDRESS TABLE (MACHINE I/O)
F09	Di/Do ADDRESS TABLE (MACHINE I/O)
F10	Di/Do ADDRESS TABLE (OP.PANEL I/O)
F11	Di/Do ADDRESS TABLE (OP.PANEL I/O)
F12	Di/Do ADDRESS TABLE (OP.PANEL I/O)
F13	Di/Do ADDRESS TABLE (OP.PANEL I/O)
F14	Di/Do ADDRESS TABLE (OP.PANEL I/O)
F15	Di/Do ADDRESS TABLE (OP.PANEL I/O)
G01	M/C INTERCONNECTION (STD/APC M/C)
H01	MTC LAYOUT, PARTS (STANDARD)
H02	MTC LAYOUT, PARTS
H03	MTC LAYOUT, PARTS (APC with HYD option)
H04	MTC LAYOUT, PARTS (Std with HYD option)
H05	RELAY PCB LAYOUT
H06	APC PCB LAYOUT
H07	HYDRAULIC PCB LAYOUT
H08	OPERATOR PANEL LAYOUT, PARTS

Revisions	④				 <b>MAKINO</b> MAKINO ASIA PTE LTD	TITLE Table of contents: (E08 - H08)	MACHINE TYPE V10 S33/S56, APC S33, E33/E56 NC TYPE FS310is-MA	DRAWING No. V1031i-C1E-X01	GROUP = SHEET No. B07
	③	APPROVED	02-JUN-2008	SKC MOHANAN					
	②	CHECKED	02-JUN-2008	JANE XING					
	①	DRAWN	02-JUN-2008	HOU LIN					