SIMON AERIALS INC.
10600 W. Brown Deer Road
Milwaukee, Wisconsin 53224
Phone (414) 355-0802
TWX: 910-262-3310
FAX: (414) 355-0832
Cable: SIMON MIL

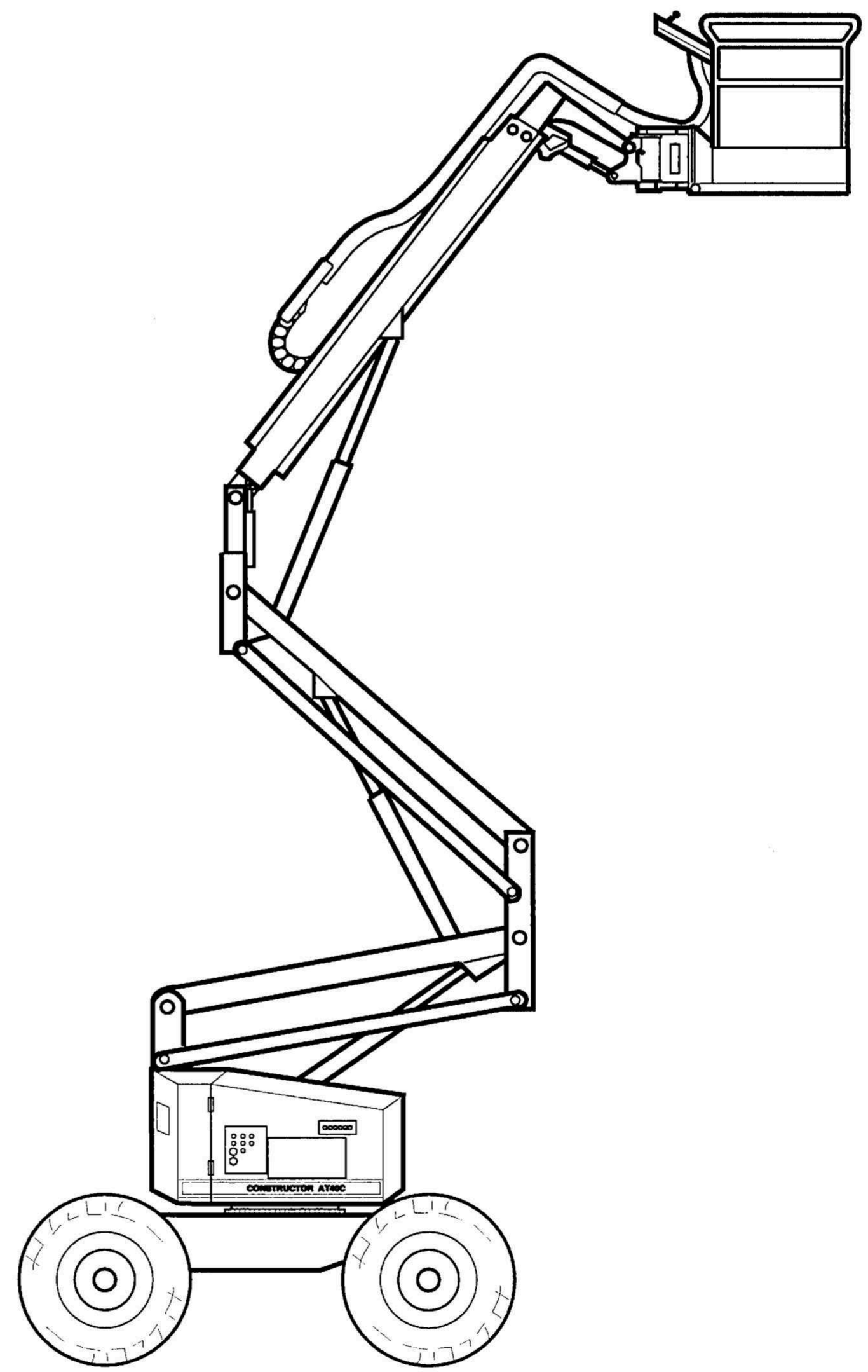
MODEL
CONSTRUCTOR
AT30C

AT40C
(S/N 5000 & UP)

PART NO. 89-444017

SIMON

SERVICE MANUAL



REVISION C.2
APRIL, 1993

MidWestTech | Terex Simon Constructor AT30C Articulated Boom Lift Service Manual | Publication 89_444017_C2
Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

INTRODUCTION 5

MACHINE SPECIFICATIONS 6

COMPONENT LOCATORS 8

LUBRICATION DIAGRAM / CHART 12

EMERGENCY SYSTEM AND PROCEDURES

- EMERGENCY ELECTRIC PUMP 15
- EMERGENCY MOVEMENT 15
- EMERGENCY LOWERING 15

HYDRAULIC FLUID

- HANDLING PRECAUTIONS 17
- FLUID RECOMMENDATIONS 17
- FLUID CONTAMINATION CHECKS 17
- SYSTEM FLUSHING PROCEDURE 18

HYDRAULIC SYSTEM

- PUMPS 20
- MANIFOLD 22
- RELIEF VALVES 25
- HYDRAULIC FLUID RESERVOIR 25
- FILTERS 25
- BOOM LIFT SYSTEM 26
- BOOM TELESCOPE SYSTEM 27
- SWING SYSTEM 28
- PLATFORM LEVELING SYSTEM 29

MidWestTech | Terex Simon Constructor AT30C Articulated Boom Lift Service Manual | Pu... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS (CONTINUED)

HYDRAULIC SYSTEM (CONTINUED)

PLATFORM ROTATE SYSTEM 30

STEER SYSTEM 31

DRIVE SYSTEM

HYDROSTATIC TRANSMISSION 32

CONTROL CIRCUIT COMPONENTS 33

DRIVELINE BRAKE/SPEED REDUCER 34

TRANSFER CASE 35

DRIVE SHAFTS AND COUPLINGS 35

REAR DRIVE AXLE 36

FRONT DRIVE AND STEERING AXLE 36

DRIVE SYSTEM TROUBLESHOOTING 37

DRIVE SYSTEM SERVICE 38

ELECTRICAL SYSTEM

12 VOLT BATTERY 42

EMERGENCY STOP BUTTONS 43

FOOT PEDAL SWITCH 43

TILT ALARM 44

MOVEMENT ALARM 45

RELAYS 45

CIRCUIT BREAKER 45

AUTOMATIC WARNING BEACON 45

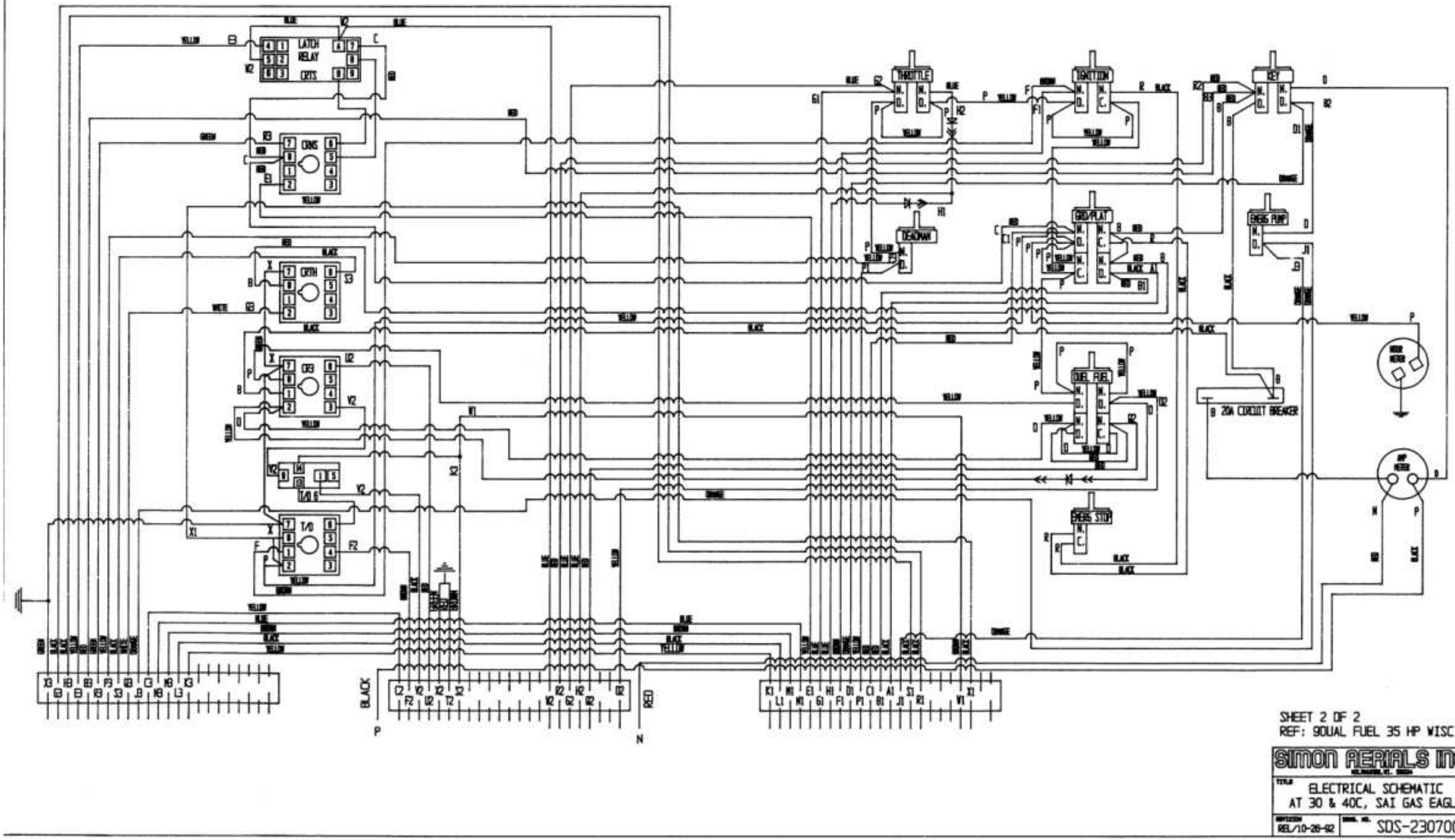
MidWestTech | Terex Simon Constructor AT30C Articulated Boom Lift Service Manual | Pu... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS (CONTINUED)

MECHANICAL COMPONENTS

TIRES 46
WHEELS AND LUG NUTS 46
SUPERSTRUCTURE 46
HOSES AND CABLES 46
TOWING PACKAGE 46
MISCELLANEOUS EQUIPMENT 46
CYLINDER PIVOT PINS AND PIN BUSHINGS 47
PIN REPLACEMENT 47
BOOM LIFT CYLINDERS 48
BOOM TELESCOPE (EXTEND) CYLINDER 49
WEAR PADS 50
PLATFORM LEVEL CYLINDERS 51
SAFETY AND INSTRUCTIONAL LABELS 52
TROUBLESHOOTING 54
MAINTENANCE SCHEDULE 57
ROUTINE SERVICING 58
OPERATIONAL CHECKLISTS 62
MAINTENANCE CHART 68
ELECTRICAL AND HYDRAULIC SCHEMATICS 71

MidWestTech | Terex Simon Constructor AT30C Articulated Boom Lift Service Manual | Pu... Order the manual at mid-west-tech.com >



Order the manual at mid-west-tech.com >