



CENTURION™

Service Information Manual
(002001 -)

epcatalogs.com



(Paper Manual)

331029

Rev. 00



331025 (CD-ROM)



This manual provides service information for the TENNANT Model CENTURION™.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly – per the maintenance instructions provided.
- The machine is maintained with TENNANT supplied or equivalent parts.

Paper Manual Number – 331029

CD-ROM Manual Number – 331025

Revision: 00

Published: 1-04

epcatalogs.com



CALIFORNIA PROPOSITION 65 WARNING: Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Component Locator	1
Switches	5
Sensors	5
Electric Motors	5
Hydraulic Valve Blocks.....	5
Solenoid Valve Coils	6
Fuses & Relays	7
Miscellaneous Components.....	7
 Electrical Troubleshooting Manual	9
Wiring Diagram	10
Wiring Harness Detail	22
Power-Up System	40
Instrumentation (Tennant Supplied).....	41
Engage PTO Shafts	43
Main Broom Rotate & Lower System.....	44
Main Broom Off & Lift System	45
Right Broom Rotate & Lower System	46
Left Broom Rotate & Lower System	47
Right & Left Broom Off & Lift System	48
Side Skirts & Drag Shoes Lower System	49
Side Skirts & Drag Shoes Lift System	50
Conveyor Forward / Reverse & Stall Systems	51
Conveyor Lower & Tilt In System	52
Conveyor Lift & Tilt Out System.....	53
Vacuum Fan & Filter Shaker Systems	54
Hopper Lift & Dump (Tilt Out, Tilt In) Systems	55
Hopper Lower & Return (Tilt Out, Tilt In) Systems	56
Wet Dust Control System	57
Right & Left Broom Tilt	58
Wet Dust Control Water Level Sensors	59
Hopper Down Temperature & Vacuum Pressure Sensors	60
Machine Level & Main Broom Arm Angle Sensors	61
Hopper Full & Weight Sensors	62
Tap Up & Tap Down Engine Speed System.....	63
Hydraulic Oil Cooling System	64
Hydraulic Oil Level & Filter Pressure Sensors	65
Fuse & Relay Data	66
Caterpillar Pin Voltage Chart	67
 Hydraulic Troubleshooting Manual	71
Hydraulic Diagram.....	72
Hydraulic Hose Diagram	75
Hydraulic Valves	89
General Hydraulic Information	110
Main Broom Rotate	114
Main Broom Lower & Pattern.....	115
Main Broom Lift	116
Side Broom Rotate	117
Right Side Broom Lower & Pattern	118
Left Side Broom Lower & Pattern	119
Right Side Broom Tilt Increase	120
Left Side Broom Tilt Increase.....	121
Right Side Broom Tilt Decrease	122
Left Side Broom Tilt Decrease	123
Right Side Broom Lift	124

Left Side Broom Lift.....	125
Conveyor Forward.....	126
Conveyor Reverse	127
Conveyor Tilt Out (away from hopper).....	128
Conveyor Tilt In (against hopper).....	129
Conveyor Lower	130
Conveyor Lift.....	131
Vacuum Fan Run	132
Vacuum Fan Shut Off.....	133
Shaker Motor Run	134
Hopper Lift.....	135
Hopper Lower.....	136
Hopper Tilt (Dump) & Chute Open.....	137
Hopper Tilt Back & Chute Close	138
Drag Shoe Lower	139
Drag Shoe Lift	140
Side Skirts Lower	141
Side Skirts Lift	142
Hydraulic Solenoid Valve Details.....	143
Orifice Information.....	144
Operation Matrix.....	146
Operator Alarm Chart.....	149
 Engine Specifications	150
 RPM Speeds.....	151
 Diagnostic Procedures	153
Self Test (Start Page)	153
Self Test E-100	154
Self Test E-200	156
Self Test E-300	158
Self Test E-700	161
Control Board	163
 Transmission	165
Allison Transmission Diagnostics	165
Displaying Diagnostic Codes.....	166
Clearing Diagnostic Codes	169
Exiting the Diagnostic Mode	170
Transmission Diagnostic Codes	171
Accessing the Transmission.....	177
 PTO	181
Installation and Owner's Manual	181
Installation.....	184
Owner's Manual.....	202
Troubleshooting	206
PTO Removal/Repair.....	209
 Conveyor	211
Replacing Conveyor Belt	211
Repairing Conveyor Belt Section	217
Replacing Conveyor Roller Assembly.....	221

Main Brush.....	229
Main Brush and Drag Shoe Cable and Arm Stops	229
Brush Arm POT Setup	233
Torque Standards	237
Inch Fasteners	237
Metric Fasteners	239
Nylon Insert lock Nuts	241
Nut-Hex Light Thin	241
Wheel Bolt and Nuts	242
Wheel Bearing Adjustment	242
Tightening Nuts on Tapered Shafts	243
Shoulder Bolts.....	244
Taper Lock Bushings	245
Sequence Tightening	249
Auto-Lube	247
Grease Jockey - Installation & Maintenance Instructions	247
System Description.....	249
System Components	250
Electric Systems	253
Installation Steps	256
PM Procedures	261
Troubleshooting	264
Parts List.....	266

[Buy now](#)

[Tennant CENTURION PDF Service Manuals](#)

[With Instant Download](#)