SERVICE MANUAL

E024 (S135FT, S155FT)



Rev. 06/14

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This section is for the following models:

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Tilt Forward Will Not Function When Activated (Manual Valve)

POSSIBLE CAUSE

A. TILT CONTROL VALVE IS STUCK IN CLOSED POSITION.

B. TILT CONTROL VALVE EXHAUST HOLES PLUGGED IN VALVE.

CAUSE A - TILT CONTROL VALVE IS STUCK IN CLOSED POSITION.

PROCEDURE OR ACTION:

1. Inspect tilt control valve and exhaust orifices. See **Main Control Valve** 2000SRM1137.
   Does the control valve piston move freely and are exhaust orifices open?
   YES: Go to Cause B.
   NO: Clean or replace tilt control valve spool.

CAUSE B - TILT CONTROL VALVE EXHAUST HOLES PLUGGED IN VALVE.

PROCEDURE OR ACTION:

1. Inspect valve section. See **Main Control Valve** 2000SRM1137.
   Are exhaust holes open?
   YES: Valve is OK. See Observed Symptoms-Gear Pump, Auxiliary Function is Slow or Does Not Function (Manual Valve), Page 9050-33-11.
   NO: Clean or replace valve.

END SYMPTOM

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Table 15. Wire Strip Length Specifications (Continued)

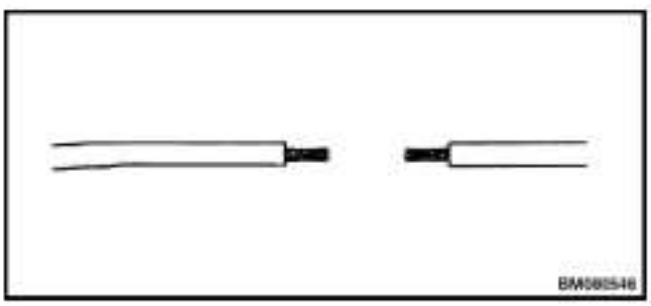
Contact Part Number	Type	Wire Gauge Range	Recommended Strip Length
1330434	Socket	16 to 20 AWG (1.0 to 0.5 mm^2)	6.35 to 7.92 mm (0.250 to 0.312 in.)
1659638	Pin	16 to 20 AWG (1.0 to 0.5 mm^2)	6.4 to 7.9 mm (0.252 to 0.311 in.)
1579860	Socket	16 to 20 AWG (1.0 to 0.5 mm^2)	6.4 to 7.9 mm (0.252 to 0.311 in.)
1330435	Pin	14 AWG (2.0 mm^2)	6.35 to 7.92 mm (0.250 to 0.312 in.)
1330436	Socket	14 AWG (2.0 mm^2)	6.35 to 7.92 mm (0.250 to 0.312 in.)
1653804	Socket	14 AWG (2.0 mm^2)	6.4 to 7.9 mm (0.252 to 0.311 in.)
0866401	Pin	12 to 14 AWG (3.0 to 2.0 mm^2)	5.64 to 7.21 mm (0.222 to 0.284 in.)
1554359	Socket	12 to 14 AWG (3.0 to 2.0 mm^2)	5.64 to 7.21 mm (0.222 to 0.284 in.)

DEUTSCH JIFFY SPLICE

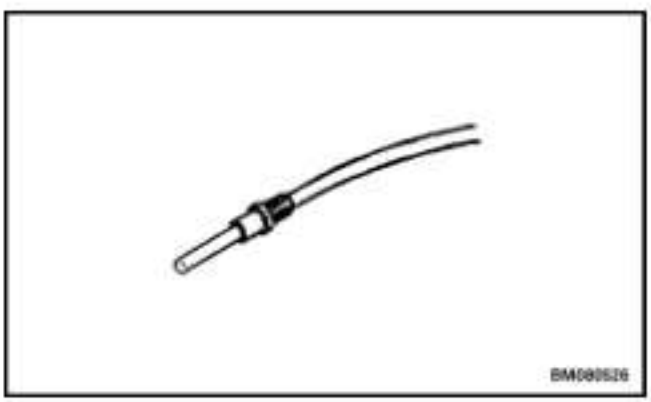
This splicing procedure adds 19.05 mm (0.75 in.) to the length of the wire and may be used when slight lengthening of the wire is desired.

Assemble

STEP 1.
Strip both wire ends to the specifications in Table 15.



STEP 2.
On one wire, crimp the appropriate pin onto the wire using the Deutsch Crimping Tool (Hyster P/N 867888). See How to Crimp With the Deutsch Crimping Tool.



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General Information About Diagrams and Schematics

The chassis wiring used in these vehicles conforms to the electrical circuit identification standard **ES-1359** and in addition to surface marked ID circuit numbers, generally utilizes the colors that are indicated in Table 1.

MONOTROL®, engine harnesses, wiring to sensors, and other applications vary with respect to wire colors.

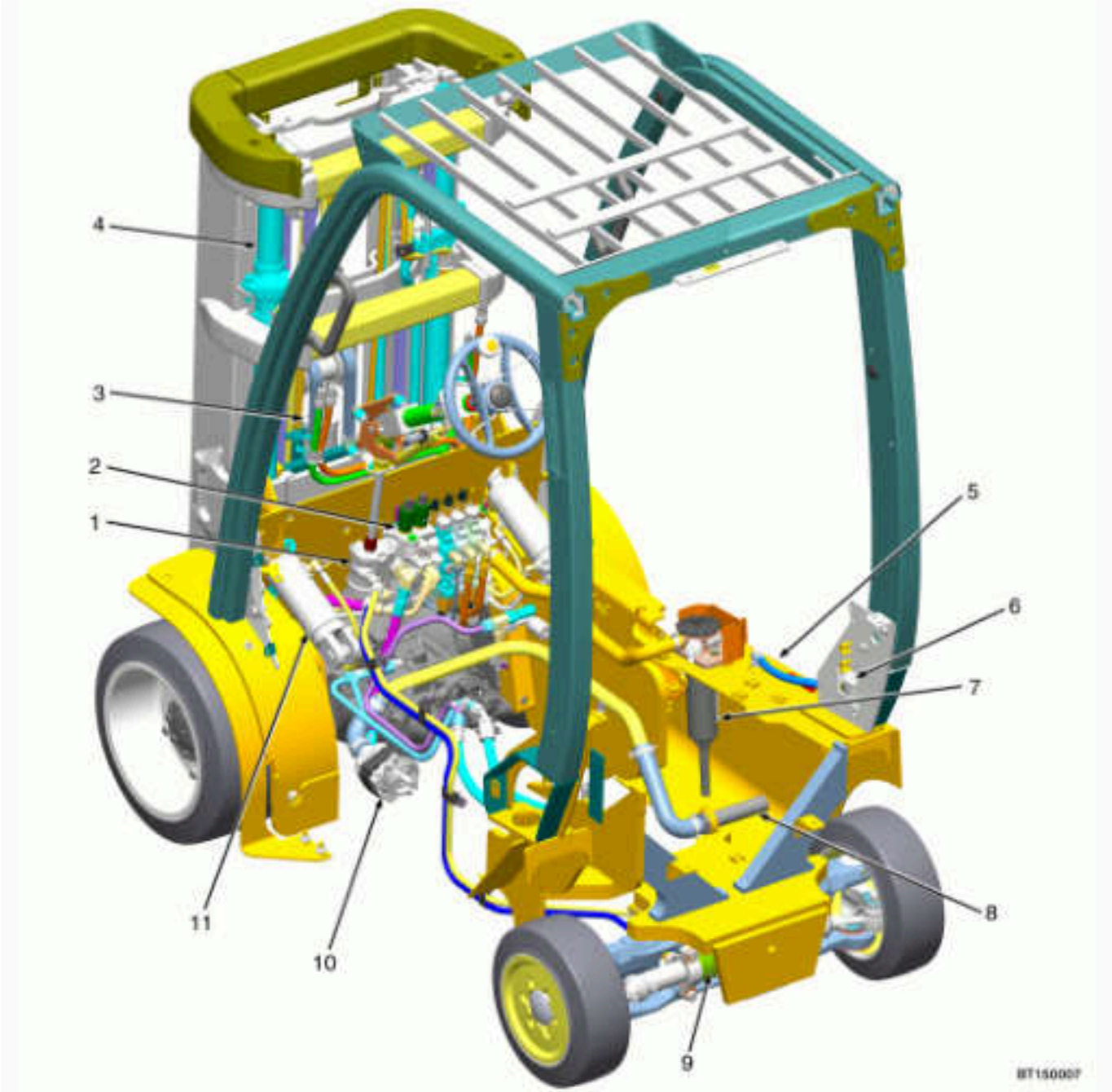
Diagrams and schematics in this manual can be viewed and printed in color. If not printed or viewed in color, refer to the electrical circuit identification located on schematic circuits. When viewing a color version of the diagrams and schematics, the white chassis wires are seen as yellow. Other wires are shown in colors similar to actual colors, i.e. tan shows as yellow. Use circuit identification for true wire color.

Refer to **Diagnostic Troubleshooting Manual** 9000SRM1112 Section 9030, Group 03 - General Maintenance and Diagnostic Data, for further information.

Table 1. Wire Colors

Color	Use/Function
Red	Battery-level power circuits and 5 volt supply circuits
Black	Heavy current grounds
Green	Signal grounds
White	Other circuits
Twisted Pair (Yellow/Green) Yellow Green	**CANbus** CAN-Hi CAN-Lo
Twisted Pair (Dk Blue/Pink and Dk Blue/White) Dk Blue/Pink Dk Blue/White	**CANbus (Mazda)** CAN-Hi CAN-Lo
Letter on the VSM BUS	**Use/Function**
R	Regulated Output Voltage
D	Driver
I	Input

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1. STEERING CONTROL UNIT (SCU)
2. MAIN HYDRAULIC CONTROL VALVE
3. FREE LIFT CYLINDER (CENTER)
4. LIFT CYLINDERS (2 USED)
5. HYDRAULIC TANK
6. BREATHER
7. RETURN FILTER
8. SUCTION SCREEN
9. STEERING CYLINDER
10. GEAR PUMP
11. TILT CYLINDERS (2 USED)

Figure 9050-10-1. Hydraulic Component Locator (1.0-5.5 Ton Shown)

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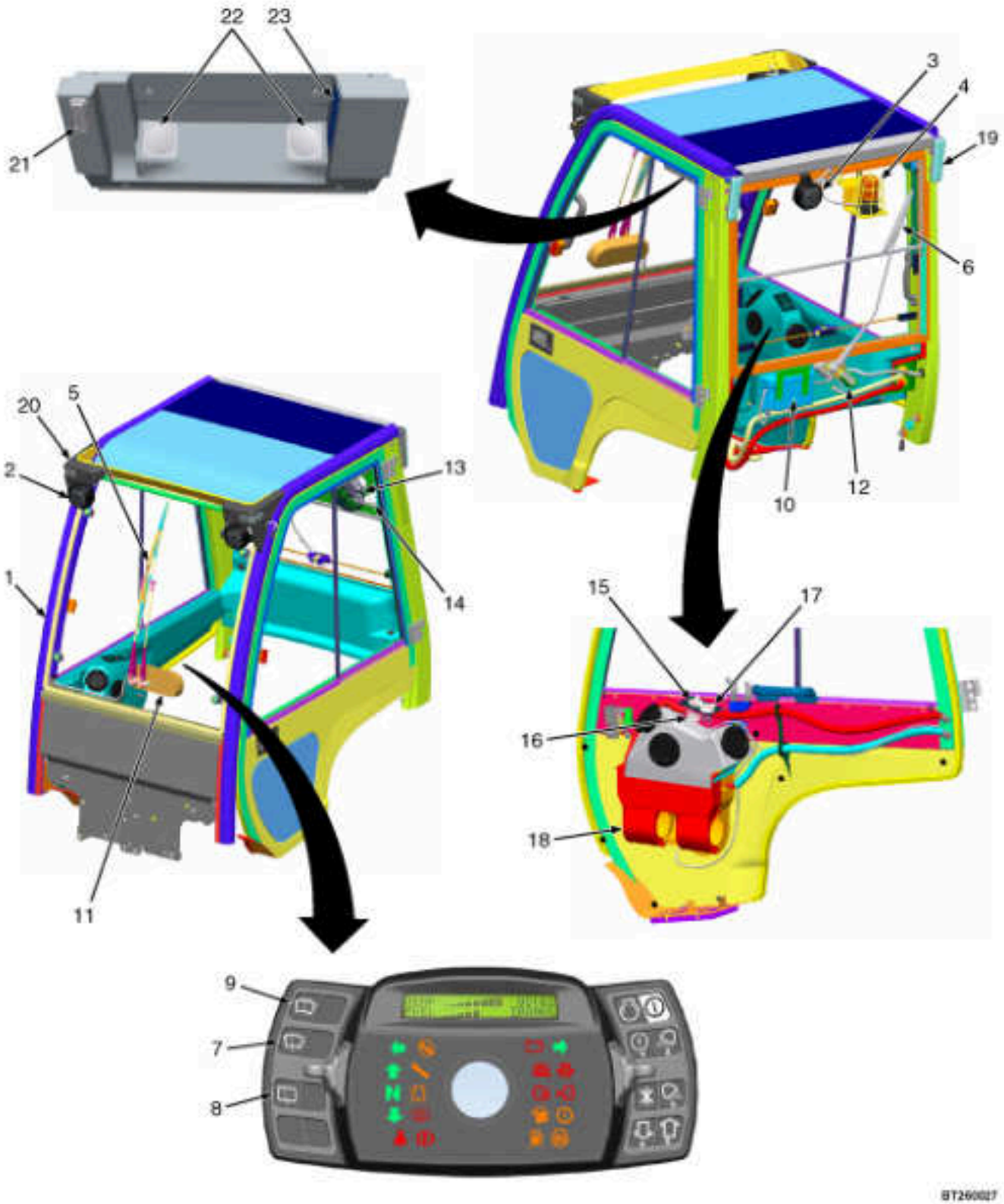


Figure 9060-10-25. Cab Component Locations

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