SEN06618-04

Shop Manual

DUMP TRUCK

HD325-8
HD405-8

SERIAL NUMBERS

HD325-50001 and up
HD405-50001 and up

KOMATSU®

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Engine speed at torque converter lockup actuation

Machine model				HD325-8	
Engine				SAA6D140E-7	
Item	Measurement condition		Unit	Standard value for new machine	Repair limit
Operated (ON)	• Engine coolant temperature: 65 to 100 °C • Transmission oil temperature: 60 to 80 °C • Hydraulic oil temperature: 45 to 55 °C	Gear speed: F1, F2	rpm	1300 to 1475	1300 to 1475
		Gear speed: F3, F4, F5, F6, F7		1250 to 1475	1250 to 1475
Released (OFF)	• Engine coolant temperature: 65 to 100 °C • Transmission oil temperature: 60 to 80 °C • Hydraulic oil temperature: 45 to 55 °C	Gear speed: F1, F2	rpm	1100	1100
		Gear speed: F3, F4, F5, F6, F7		1100	1100

Engine speed at overrun prevention actuation

Machine model				HD325-8	
Engine				SAA6D140E-7	
Item	Measurement condition		Unit	Standard value for new machine	Repair limit
Actuation at low speed mode 1 (ON)	• Engine coolant temperature: 65 to 100 °C • Transmission oil temperature: 60 to 80 °C • Hydraulic oil temperature: 45 to 55 °C	Gear speed: F1, F2, F3, F4, F5, R	rpm	2300	2300
		Gear speed: F6, F7		2400	2400
Cancellation at low speed mode 1 (OFF)		Gear speed: F1, F2, F3, F4, F5, F6, F7, R		2300	2300
Actuation at low speed mode 2 (ON)	• Engine coolant temperature: 65 to 100 °C • Transmission oil temperature: 60 to 80 °C • Hydraulic oil temperature: 45 to 55 °C	Gear speed: F1, F2, F3, F4	rpm	2450	2450
		Gear speed: F5, F6, F7, R		2450	2450
Cancellation at low speed mode 2 (OFF)		Gear speed: F1, F2, F3, F4, F5, F6, F7, R		2300	2300
Actuation at high speed mode (ON)	• Coolant temperature: 65 to 100 °C • Transmission oil temperature: 60 to 80 °C • Hydraulic oil temperature: 45 to 55 °C	Gear speed: F1, F2, F7, R	rpm	2600	2600
		Gear speed: F3		2600	2600
		Gear speed: F4		2600	2600
		Gear speed: F5		2600	2600
		Gear speed: F6		2600	2600
Cancellation at high speed mode (OFF)		Gear speed: F1, F2, F3, F4, F5, F6, F7, R		2350	2350

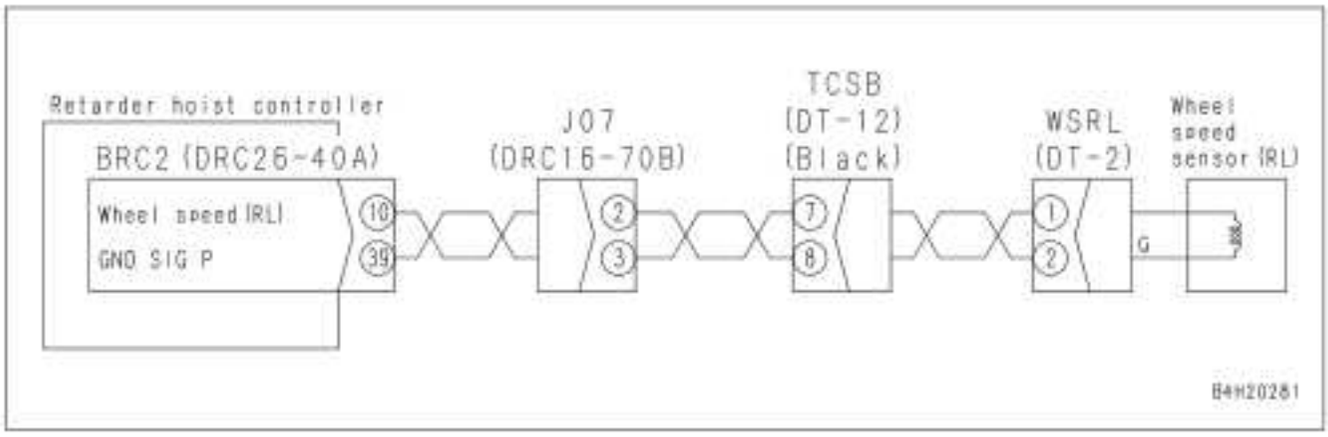
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FAILURE CODE [CA3231]

Action level	Failure code	Failure	SCR Temperature High Error - Non Regeneration (Engine controller system)
L03	CA3231		
Details of failure	SCR temperature remains at high level (800 °C) when active regeneration is not performed.		
Action of controller	• Activates Inducement strategy. • Stops AdBlue/DEF injection.		
Phenomenon on machine	• NOx emission increases because AdBlue/DEF injection is disabled. • Engine power decreases according to inducement strategy.		
Related information	⚠ **KDPF, KDOC, and SCR become hot (Min. 500 °C). Be careful not to get burned.** • If the failure code [CA3142] or [CA3143] is displayed, SCR temperature sensor may be defective. Perform troubleshooting for it first. • If the failure code [CA3251], [CA3253], [CA3254], [CA3311], [CA3255], [CA3256], or [CA3312] is displayed, KDPF system may be defective. Perform troubleshooting for it. • If the failure code [CA4277] is displayed or logged in the abnormality record, AdBlue/DEF Quality Sensor Liquid Distinction Impossible Error is suspected. Perform troubleshooting for it. • To restart the engine, wait until the system operating lamp goes out after turning the starting switch to OFF position, and then turn the starting switch to ON position. • Temperature detected by SCR temperature sensor can be checked by the Pre-defined Monitoring screen. • On the Pre-defined Monitoring screen, use the items of SCR catalyst related (1) and AdBlue/DEF tank sensor related diagnoses. (The following numbers are the displayed monitoring codes.) • SCR catalyst related (1) 01002 Engine Speed 18600 Inject Fueling Command 19200 Exhaust Gas Flow Rate 47300 KDOC 1 Inlet Temperature 19300 SCR Temperature 19302 SCR Outlet Temperature • AdBlue/DEF tank sensor related 19100 AdBlue/DEF Concentration 19110 AdBlue/DEF Level 19111 AdBlue/DEF Level Corrected 19115 AdBlue/DEF Temperature in Tank 19400 Ambient Temperature 19305 AdBlue/DEF Tank Heating State **NOTICE** **This failure code requires Loaded Diagnostics Operation To Confirm Failure Correction. After investigating the cause of the problem and completing the repair, perform Loaded Diagnostics Operation To Confirm Failure Correction to make sure the failure code is cleared. (Even if this failure code is not displayed with the starting switch turned to ON position, high exhaust temperature is required to confirm that the repair is completed.)**		

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Circuit diagram related to wheel speed sensor (rear left)

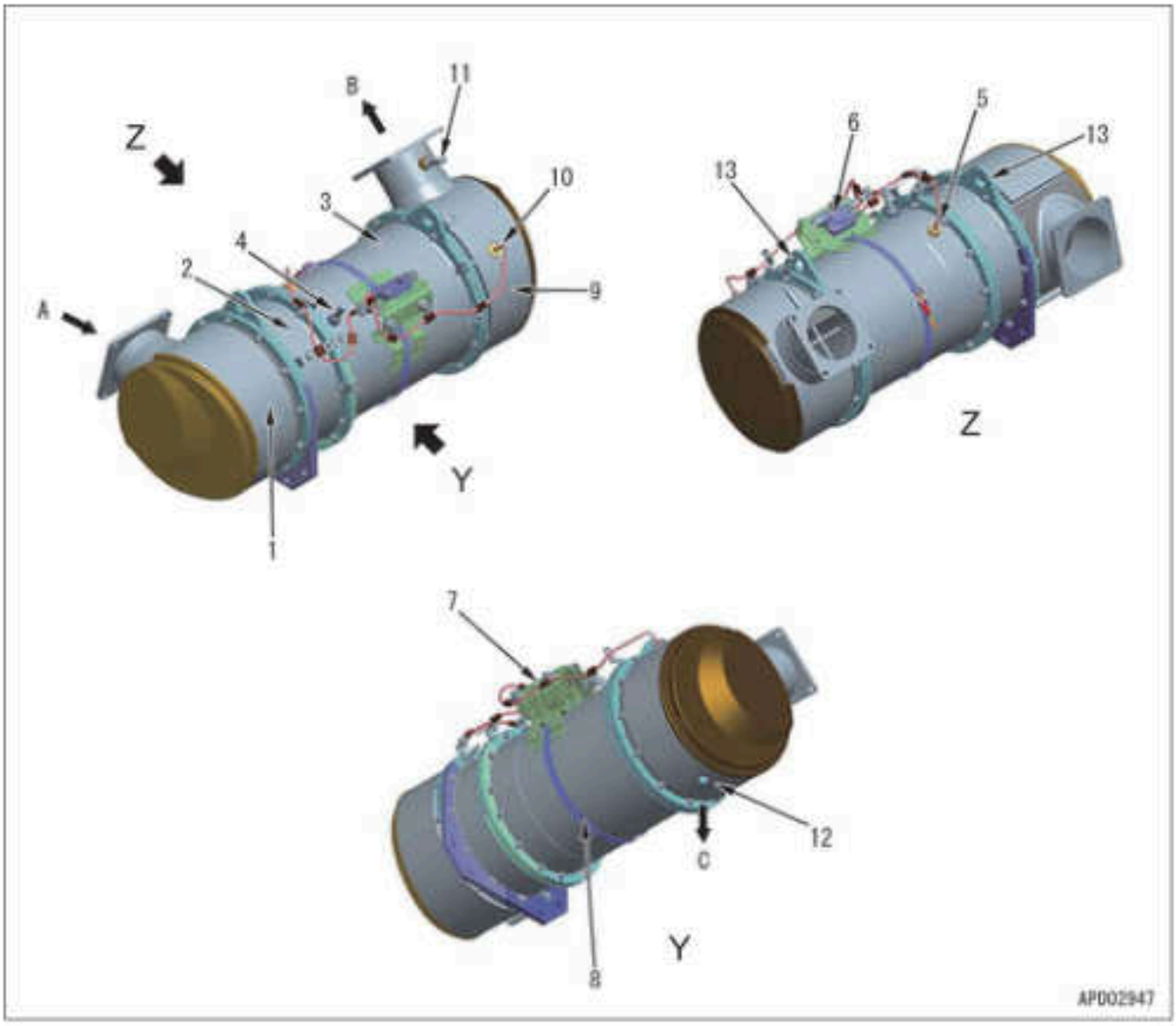


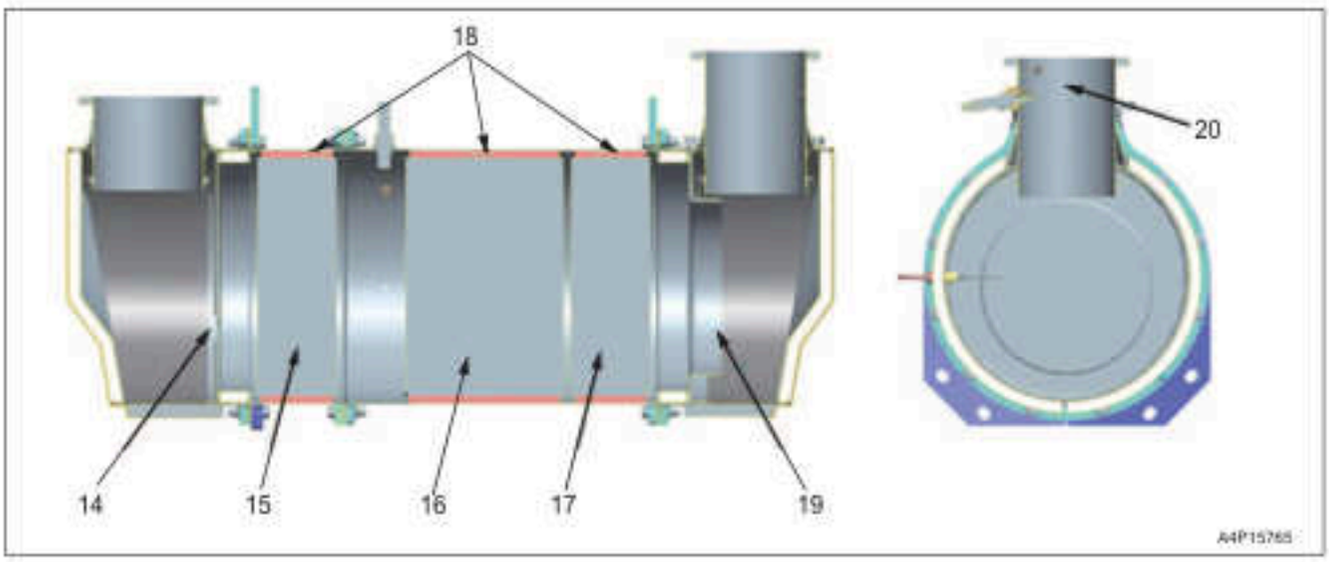
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SCR ASSEMBLY
STRUCTURE OF SCR ASSEMBLY

REMARK

The shape is subject to machine models.





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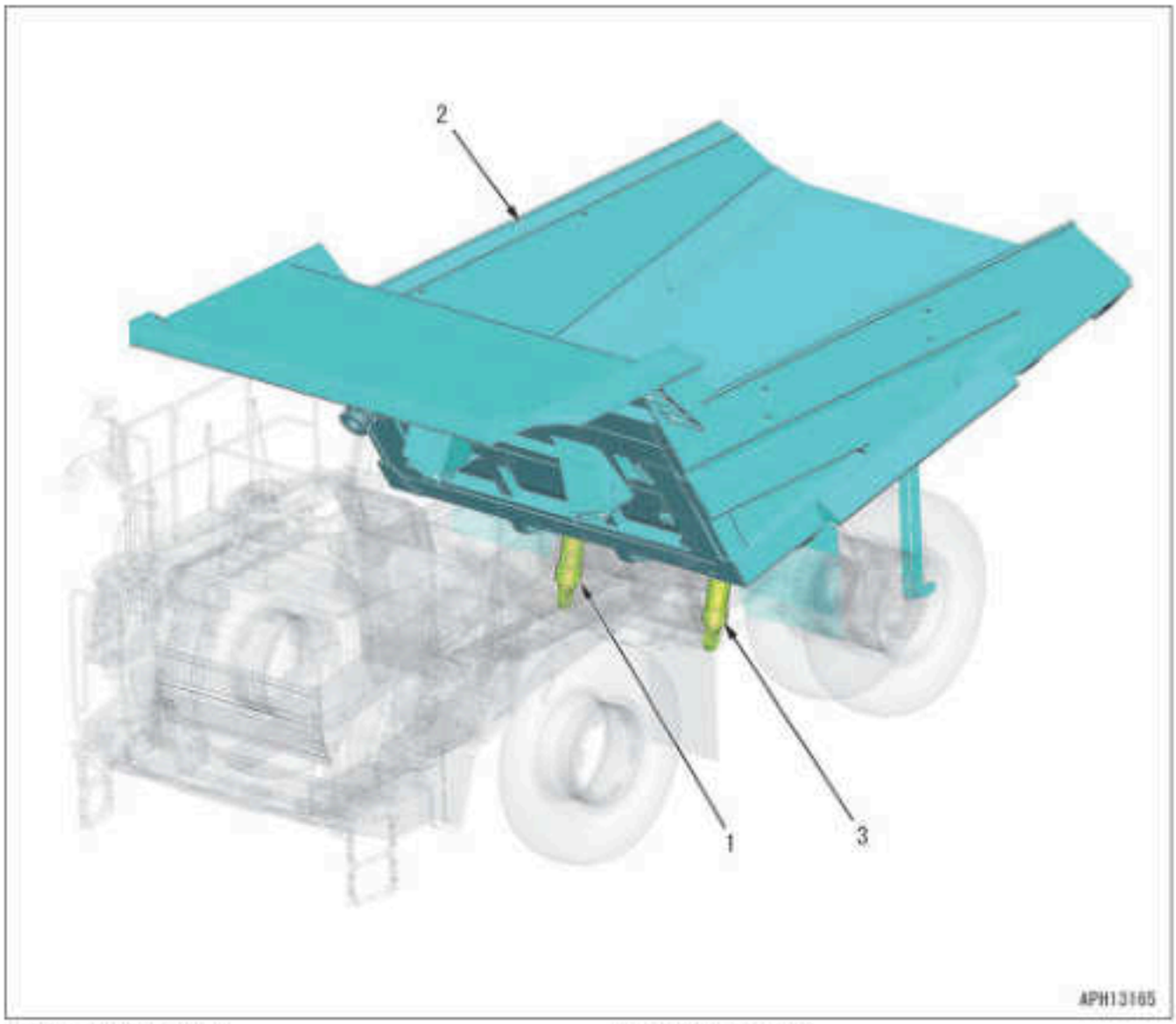
WORK EQUIPMENT

STRUCTURE OF WORK EQUIPMENT

General view

REMARK

The figure shows HD325-8 type.



1: Hoist cylinder (right)
2: Body
3: Hoist cylinder (left)

FUNCTION OF WORK EQUIPMENT

The body has functions of loading , and unloading by tilting the body with hoist cylinder.

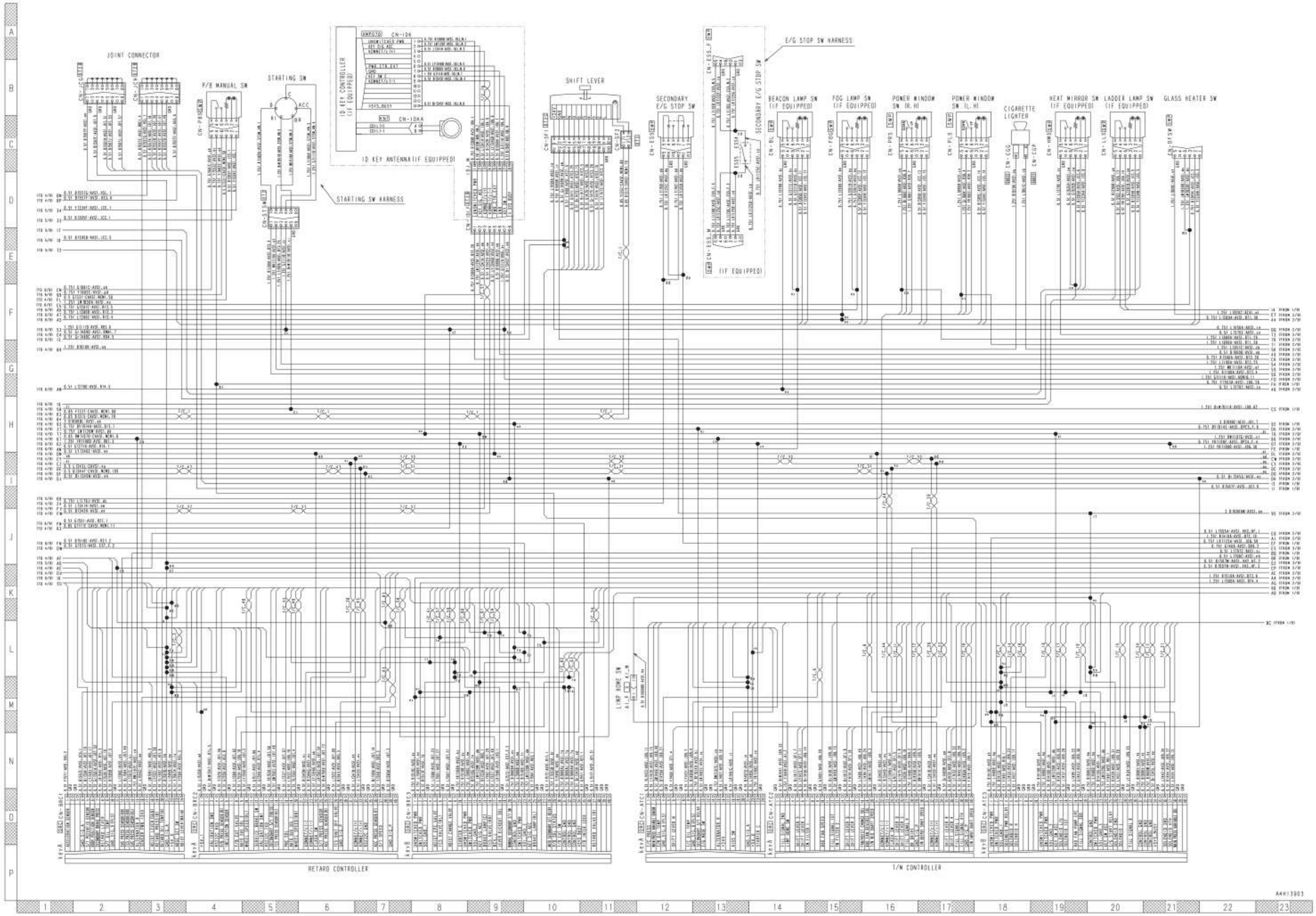
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INTERNAL CAB ELECTRICAL DIAGRAM (3/9)

HD325-8, HD405-8

REMARK

This figure covers the equipment and devices that are unavailable as optional items in some areas.



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