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## SERVICE BULLETIN

### MAINTENANCE OF WAY EQUIPMENT

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**DATE:** 06 – 2026

**BULLETIN NO:** SBUS000143-26

**TITLE:** LTA#2 UPGRADE KIT

**RATING:**  **DIRECTIVE**  
(Action Is Required)

**ALERT**  
(Potential Problem)

**INFORMATION**  
(Action Is Optional)

**PRODUCT IMPROVEMENT**  
(Enhance Product)

**PRODUCT SERIES / MODEL:** RGE16A1 RAIL GRINDER

**SERIAL NO:** 257826, 257627, and 257628

**SUMMARY:**

This package includes the following four kits:

1. 5153823 – Kit, Ambient Air Temperature Sensor
2. 5153824 – Kit Air Compressor Temperature Monitor
3. 5153825 – Kit, Intercooler Fan Running
4. 5153826 – Kit, Dust Collector Temperature Senders

**OPERATIONAL IMPACT:**

With the additional temperature sensors within the machine, The Jupiter control system will monitor these inputs to provide more diagnostic information on the machine.

**ACTION:**

Follow instructions on the engineering print 5153823, 5153824, 5153825 and 5153826 to properly and safely install the kits to the grinder machine.

**CONTACT:** Harsco Rail Service Department  
Please contact Kelly Gardner - kgardner@harsco.com

## SAFETY INFORMATION



- Follow applicable railroad lockout - tagout procedure to remove machine from energy source. Failure to comply could result in severe bodily injury.
- Refer to energy control procedure to remove all energy sources from machine before performing maintenance or making adjustments or repairs to machine.

Failure to heed these warnings could result in severe bodily injury or death.

### Kit Description and Key Set Points:

#### 1. 5153823 – Kit, Ambient Air Temperature Sensor

This kit includes the addition of four temperature sensors to the machine consist. One temperature sensor mounted near the bumper level and one on the cab roof of both Car 1 and Car 3. These temperature sensors will continuously monitor the ambient temperature of the machine at the four locations. The Jupiter control system will then display these temperatures to the user via the Jupiter Control Screen.

See Jupiter Controls:  
and Temperature Monitoring IO and Alarms List sections.

See assembly drawing 5153823 for parts and installation.

#### 2. 5153824 – Kit Air Compressor Temperature Monitor

This kit includes adding temperature sensors to monitor the air compressor oil and the temperature of the compressed air on Car 1. These temperatures will then be monitored by the Jupiter Control System to ensure that overheating of the air compressor is detected in time to avoid damage to the air compressor system. The Jupiter Control System will then display these temperatures to the user via the Jupiter Control Screen. The following temperature setpoints and messages will be displayed:

*Note: These temperature setpoints are defined using an ambient temperature range of 22°C to 33°C, with an air compressor operating RPM of 900.*

Warning/Caution level: 85°C

If the temperature of the air compressor oil reaches 85°C, the Jupiter screen will display the following message:

“Air compressor temperature is high, check the cooling system”

At this point, the panel with the air compressor temperature measurement will automatically be displayed on the Jupiter screen. The operator will not be able to remove this panel by selecting the “ESC” button until the air compressor temperature goes below 85°C

If this error message is displayed, the suggested operator action is to finish the current grinding pass and then check the condition of the air compressor and that the air compressor cooling fan is operating correctly. If any problems are observed, all grinding operations should be terminated, and the machine should be returned to the depot for further failure analysis.

Critical/Shutdown level: 99°C

If the temperature of the air compressor reaches 99°C, the Jupiter screen will display the following message:

“Air compressor temperature Critically High: System shutdown recommended”

If this error message is displayed, the suggested operator action is to immediately terminate grinding operations, shut down all grinding motors, and then shut down the APU as soon as possible. The machine should then be returned to the depot for failure analysis.

See Jupiter Controls:  
and Temperature Monitoring IO and Alarms List sections.

See attached assembly drawing 5153824 for parts and installation.

**3. 5153825 – Kit, Intercooler Fan Running**

This kit includes the addition of a current sensing relay in the Car 1 Main Junction box, that will monitor the current of the air compressor intercooler fan. Once a current threshold has been achieved, the current sensing relay will give the Jupiter Control System indication that the air compressor oil cooling fan is running. This indication will be displayed on the Jupiter Control screen and recorded in the Jupiter log.

See Jupiter Controls:  
and Temperature Monitoring IO and Alarms List sections.

See attached assembly drawing 5153825 for parts and installation.

**4. 5153826 – Kit, Dust Collector Temperature Senders**

This kit includes the addition inlet and outlet temperature sensors to the dust collectors on Cars 2 & 3. The Jupiter Control System will then display these temperatures to the user via the Jupiter Control Screen.

See Jupiter Controls:  
and Temperature Monitoring IO and Alarms List sections.

See attached assembly drawing 5153826 for parts and installation.

### Jupiter Controls:

Access the miscellaneous menu from the main screen.



Figure 1: Main Screen Panel

There are 2 new buttons on this menu, one for air compressor temperature monitoring and one for dust collectors and external ambient temperature monitoring.

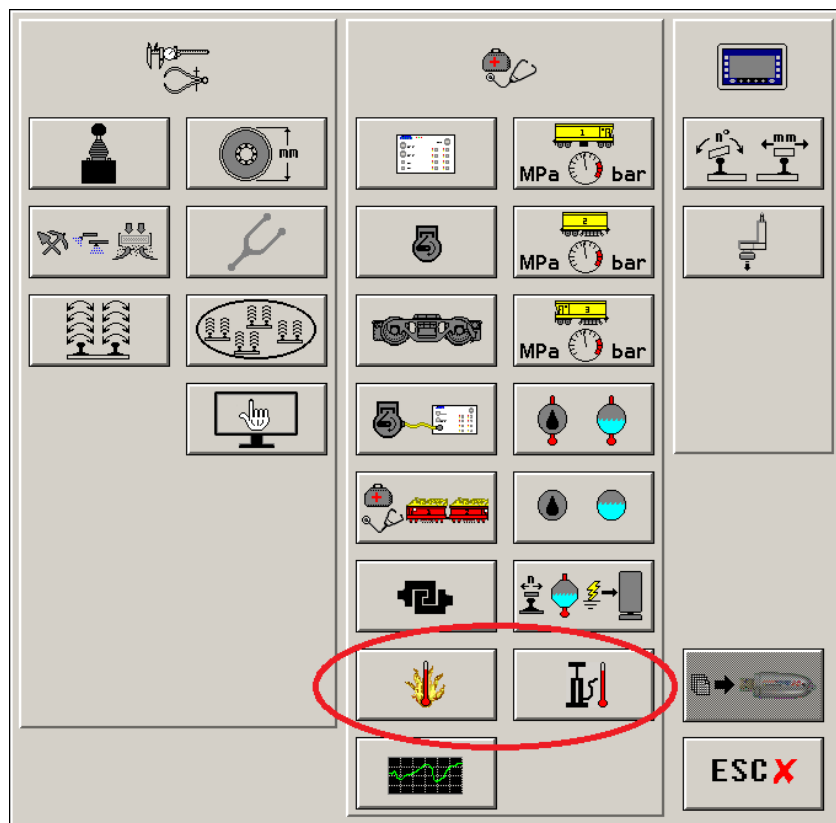


Figure 2: Miscellaneous Menu panel

These new temperature readings each have their own histogram on their respective temperature monitoring panels. The histograms plot a trace of the last hour of temperature data. On the left is the range and scale of the monitored value. The regions marked in red on the vertical axis to indicate 'out of range'. If a graph trace moves into one of these regions, there is a problem and the cause must be investigated. The icon associated with the problem parameter will flash red while the parameter remains in the red "out of range" portion of the graph. This will also automatically "pop" out the respective panel on the Jupiter system that displays this value and an alarm will be issued, notifying the operator of the issue.

On the right is an arrow that slides up/down, showing the current value being read. On the bottom is a number information box that also shows the current reading's numerical value

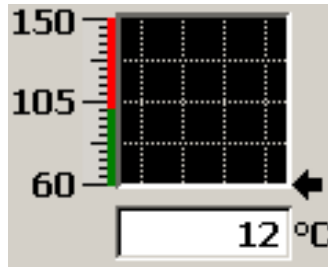


Figure 3: Histograms

### Air Compressor Temperature Monitoring Panel

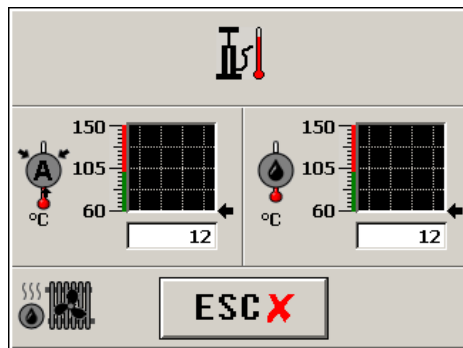
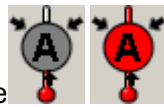





Figure 4: Air Compressor Temperature Monitoring Panel

This dialog box displays the temperatures measured in the air compressor system (left to right):

- 1) Air compressor system air temperature 
- 2) Air compressor system oil temperature 

In the bottom left side of this panel is an icon that indicates the running status of the air compressor oil intercooler fan.  The on (yellow highlighted ) status indicates that the fan motor has been pulling a specific amount of amperes for a specific amount of time.

### Temperature Monitoring Panel

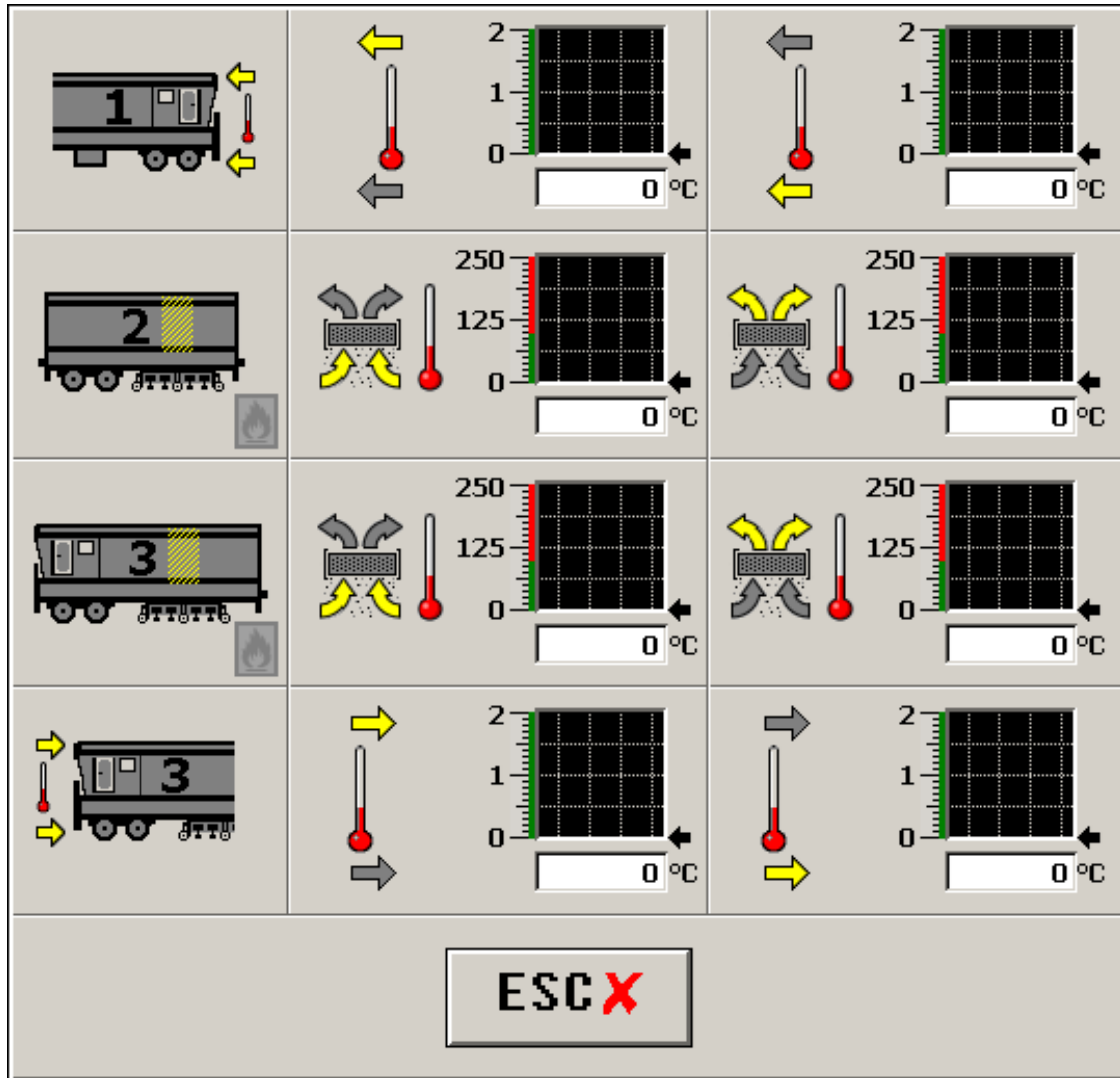
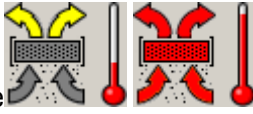
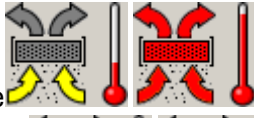

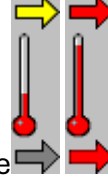
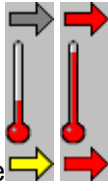




Figure 5: Temperature Monitoring Panel

This dialog box displays the temperature measured at the following locations on each car in the machine consist: (left to right, top to bottom):

- 1) Car 1 upper outside ambient temperature
- 2) Car 1 lower outside ambient temperature
- 3) Car 2 dust collector air intake temperature

- 4) Car 2 dust collector air exhaust temperature 
- 5) Car 3 dust collector air intake temperature 
- 6) Car 3 dust collector air exhaust temperature 
- 7) Car 3 upper outside ambient temperature 
- 8) Car 3 lower outside ambient temperature 

In the Car 2 and Car 3 dust collector boxes on the far-left middle are icons that indicates when each car's dust collector heat switch has been tripped.  

### Temperature Monitoring IO and Alarms List

SID	Text	Alarm @ °C	Notes
IO_C1_INTRCLR_FAN_ON_NO_SW	Intercooler Fan Running Normally Open Switch		
IO_C1_INTRCLR_FAN_ON_NC_SW	Intercooler Fan Running Normally Closed Switch		
IO_C1_AIR_COMP_OIL_TEMP	Air Compressor Oil Temperature		
IO_C1_AIR_COMP_AIR_TEMP	Air Compressor Air Temperature		
IO_C1_LWR_AMBIENT_TEMP	Lower Ambient Temperature Car 1		
IO_C1_UPR_AMBIENT_TEMP	Upper Ambient Temperature Car 1		
IO_C3_LWR_AMBIENT_TEMP	Lower Ambient Temperature Car 3		
IO_C3_UPR_AMBIENT_TEMP	Upper Ambient Temperature Car 3		
IO_C2_DC_EXHAUST_TEMP	Dust Collector Exhaust Temperature Car 2		
IO_C2_DC_INLET_TEMP	Dust Collector Inlet Temperature Car 2		
IO_C3_DC_EXHAUST_TEMP	Dust Collector Exhaust Temperature Car 3		
IO_C3_DC_INLET_TEMP	Dust Collector Inlet Temperature Car 3		
ALM_COMPRESSORAIRHOT	Air compressor air temperature high: Check cooling system	85.00	Warning/Caution: ~185°F (85°C)
ALM_COMPRESSOROILHOT	Air compressor oil temperature high: Check cooling system	85.00	Warning/Caution: ~185°F (85°C)
ALM_COMPRESSORAIRFAIL	Air compressor air temperature Critically High: System shutdown recommended	99.00	Critical/Shutdown: ~210°F (99°C)
ALM_COMPRESSOROILFAIL	Air compressor oil temperature Critically High: System shutdown recommended	99.00	Critical/Shutdown: ~210°F (99°C)
ALM_INTRCLR_FAN_FAIL	Air compressor intercooler fan relay #K2530 abnormal status	Digital Logic	short/open circuit detection via relay's dual NO/NC contacts.
ALM_AMBT_UP_TEMPHIGH	Excess upper ambient heat on Car %d	100.00	
ALM_AMBT_DN_TEMPHIGH	Excess lower ambient heat on Car %d	100.00	
ALM_DUSTINTEMPHIGH	Dust collector intake temperature reading high	100.00	Same value as LTA #4 machine
ALM_DUSTEXHAUSTTEMPHIGH	Dust collector exhaust temperature reading high	100.00	Same value as LTA #4 machine
ALM_DUSTCOLLECTORFIRE	Dust collector heat switch tripped on Car %d	Digital Logic	Existing DC heat switches

## Service Group Parts List

See attached engineering prints for service group contents.

### FACILITY LOCATIONS

#### **HARSCO RAIL, LLC**

306 West Fourth Street  
Fairmont, MN  
56031-1837  
Tel: +1 (507) 235-7376  
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Fax: +1 (507) 235-7372

#### **HARSCO RAIL GLOBAL HEADQUARTERS**

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#### **HARSCO RAIL CHINA**

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#### **HARSCO RAIL LTD**

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#### **HARSCO RAIL MALAYSIA**

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46200 Petaling Jaya,  
Selangor, Malaysia

#### **HARSCO RAIL PTY LTD**

157 Granite St  
Geebung, Queensland 4034  
Australia  
Tel: 61 7 3205 6500  
Fax: 61 7 3205 7369

BILL OF MATERIAL				
ITEM	PART #	QTY	PART DESCRIPTION	
1	155268-2	1	SILICONE SEALANT	: 3OZ TUBE
2	199053	2	CONNECTOR	: BULKHEAD CONNECTOR, M12, 5 PIN M/F
3	2001275	2	WASHER	: WASHER, FLAT FENDER, 3/8, ZP
4	2013713	2	CABLE ASSEMBLY, M12	: 1M M12-M/90F 18AWG/5 COND SHLD LSZH
5	3401328	1	CABLE ASSEMBLY, M12	: 7M M12-M/F 18AWG/5 COND SHLD LSZH
6	3401329	5	CABLE ASSEMBLY, M12	: 10M M12-M/F 18AWG/5 COND SHLD LSZH
7	3412347	2	CABLE GRIP	: CABLE FROM: 0.13-0.38", 3/4" NPT
8	5047874	4	SENSOR, TEMPERATURE	: TEMPERATURE SENSOR -40 TO 230 F W/M12 MALE CONN
9	5080465	4	BRACKET	: BRACKET, AMBIENT TEMP SENSOR
10	0-3040000-0-06	1	COMPOUND	: BLUE LOCTITE 242
11	D1938Y01	4	REDUCING WASHER	: REDUCES 1" NPT HOLE TO 3/4" NPT
12	D8197Y18	20	TAGS, CABLE	: PLASTIC CABLE TAG SLEEVE
13	F001007	2	BOLT	: BOLT, HHCS, 3/8-16 X 1LG, GR5, ZP
14	F001354	2	WASHER	: WASHER, LOCK MEDIUM, 3/4, ZP
15	F002256	2	BOLT	: BOLT, HHCS, 3/4-10 X 1.25LG, GR5, ZP
16	F008430	10	CLAMP, P	: 0.63 ID, MOUNT HOLE 0.28 DIA, NON-INSULATED
17	F008461	10	CLAMP, P	: 0.31 ID, MOUNT HOLE 0.28 DIA, NON-INSULATED
18	F011998	2	NUT	: NUT, LOCK LGT, 3/8-16, GR5, ZP
19	F014765	20	SCREW	: 1/4-20 X 1/2 SELF TAP SCREW
20	F016578	25	TY-RAP	: MEDIUM 7.31"
21	F018229	100	TY-RAP	: SMALL 3.5"
22	F019878	4	CONDUIT, LOCK NUT	: 1/2" CONDUIT LOCK NUT, W/GASKET
23	F020283	2	CONDUIT, LOCK NUT	: 3/4" CONDUIT LOCK NUT, W/GASKET
24	F021137	2	WASHER	: WASHER, FLAT, 3/4, YZP
25	G0135Y03	4	THERMO WELL	: FOR 1/4 IN DIA SENSOR, 1/2 NPT MOUNT
26	3401327	1	CABLE ASSEMBLY, M12	: 5M M12-M/F 18AWG/5 COND SHLD LSZH
27	F020758	50 FT	WIRE SHIELD	: .38 I.D./ .50 O.D.


REFERENCE DRAWINGS	
INCLUDE A COPY OF THE FOLLOWING DRAWINGS WITH THIS KIT	
DRAWING #	DESCRIPTION
3411290	ELECTRICAL SCHEMATIC, CAR 1 & 2
3411291	ELECTRICAL SCHEMATIC, CAR 3
5153823	KIT, AMBIENT AIR TEMP SENSOR

NOTE: PLACE PRINTED DEVICE LABELS, CABLE TAGS, AND WIRE NUMBERS IN PLASTIC BAG AND INCLUDE WITH THIS KIT. SEE NOTE 8.

NOTES:

- ALL WIRES & CONDUCTORS SHALL BE LABELED (WIRE MARKERS) USING A SLEEVE TYPE NUMBERING SYSTEM. WIRES ARE TO BE LABELED ON BOTH ENDS EXCEPT WHERE:  
- OVERALL WIRE LENGTH IS LESS THAN 4"  
- WIRES ARE TERMINATED IN A CONNECTOR (VEAM, CANNON, DIN, ETC.)
- USE SUPPLIED TY-RAPS AS REQUIRED TO SECURE CABLES AND WIRES NEATLY. DO NOT USE TY-RAPS IN WIRE TRAYS OR CONDUIT.
- ROUTE WIRES PER DIAGRAM AND CABLE CHARTS. MAKE ALL CORNERS AS SQUARE AS POSSIBLE.
- ALL CABLES SHALL BE LABELED WITH CABLE MARKERS PLACED IN D8197Y18-SLEEVES PER CABLE CHARTS. SECURE SLEEVE TO BOTH ENDS OF THE CABLE USING F018229-TY-RAP 2" FROM BOX AND 6" FROM THE FREE END. ONCE SECURED CENTER MARKER AND TRIM EXCESS SLEEVE ENDS.
- LABEL STRAIN RELIEF AND M12 CONNECTOR INSIDE OF PANELS PER THE DRAWING USING SELF-ADHESIVE LABELS.
- ADD CORRUGATED LOOM F020758 TO ALL EXTERIOR RUN CABLES ON THE FRONT OF THE CAB.
- USE SUPPLIED P-CLAMPS AND SELF TAPPING HARDWARE AS REQUIRED TO SECURE CABLES NEATLY.
- A FILE CONTAINING ALL WIRE, CABLE, & COMPONENT LABELS FOR THIS ASSEMBLY HAS BEEN LOADED AS A DATASET IN TEAMCENTER.

SIMILAR TO 5081488

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	EC622179	A	PRELIMINARY RELEASE	ZSJ	03-20-26		1	ZSJ		
	EC622200	B	FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26		NUMBER OF JUPITER SHEETS	REL. DATE:		03-20-2026
							-	SIZE:		D
						MACHINE TYPE-MODEL:	TOTAL NUMBER OF SHEETS	SCALE:	E3 DRAWING	
						RGE16A1-27	6		5153823	
						E3 PROJECT FILE NAME: RGE16A1_CAR1&2_18				

**NEW CABLES - CAR 1 LOWER TEMPERATURE SENSOR**

SEE SHEET 3

CAR 1 LOWER TEMP ENCL		J11700 3401329		CABLE ASSEMBLY, M12 CAR 1 FRAME		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:11:C7	EXISTS	J11700A:MAL	EXISTS

SEE SHEET 3

CAR 1 LOWER TEMP A CAR 1 FRAME		J11700A 3401328		CABLE ASSEMBLY, M12 CAR 1, HOSE REEL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	J11700:FEM	EXISTS	RJ11750:M12	EXISTS

**NEW CABLES - CAR 1 UPPER TEMPERATURE SENSOR**

SEE SHEET 3

CAR 1 UPPER TEMP ENCL		J11800 3401329		CABLE ASSEMBLY, M12 CAR 1 FRAME		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:11:C8	EXISTS	J11800A:MAL	EXISTS

SEE SHEETS 3 & 4

CAR 1 UPPER TEMP A CAR 1 FRAME		J11800A 3401329		CABLE ASSEMBLY, M12 CAR 1 CAB SOFFIT		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	J11800:FEM	EXISTS	PJ11850:MAL	EXISTS

SEE SHEETS 3 & 4

CAR 1 UPPER TEMP B CAR 1 CAB SOFFIT		J11800B 2013713		CABLE ASSEMBLY, M12 CAR 1, ROOF		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	PJ11850:FEM	EXISTS	RJ11850:M12	EXISTS

SEE SHEET 4

CAR 1 UP TEMP BLKHD CAR 1 FRAME		PJ11850 199053		CONNECTOR CAR 1 FRAME		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	MAL	-	J11800B:MAL	EXISTS	J11800A:FEM	EXISTS

**NEW CABLE - CAR 3 LOWER TEMPERATURE SENSOR**

SEE SHEET 5

CAR 3 LOWER TEMP WATER TANK		J09A100 3401329		CABLE ASSEMBLY, M12 CAR 3, HOSE REEL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:09A:C1	EXISTS	RJ09A150:M12	EXISTS

**NEW CABLES - CAR 3 UPPER TEMPERATURE SENSOR**

SEE SHEET 5

CAR 3 UPPER TEMP WATER TANK		J09A200 3401329		CABLE ASSEMBLY, M12 CAR 3, FRONT		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:09A:C2	EXISTS	J09A200A:MAL	EXISTS

SEE SHEETS 5 & 6

CAR 3 UPPER TEMP A CAR 3, FRONT		J09A200A 3401327		CABLE ASSEMBLY, M12 CAR 3, CAB SOFFIT		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	J09A200:FEM	EXISTS	PJ09A250:MAL	EXISTS

SEE SHEETS 5 & 6

CAR 3 UPPER TEMP B CAR 3, CAB SOFFIT		J09A200B 2013713		CABLE ASSEMBLY, M12 CAR 3, ROOF		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	PJ09A250:FEM	EXISTS	RJ09A250:M12	EXISTS

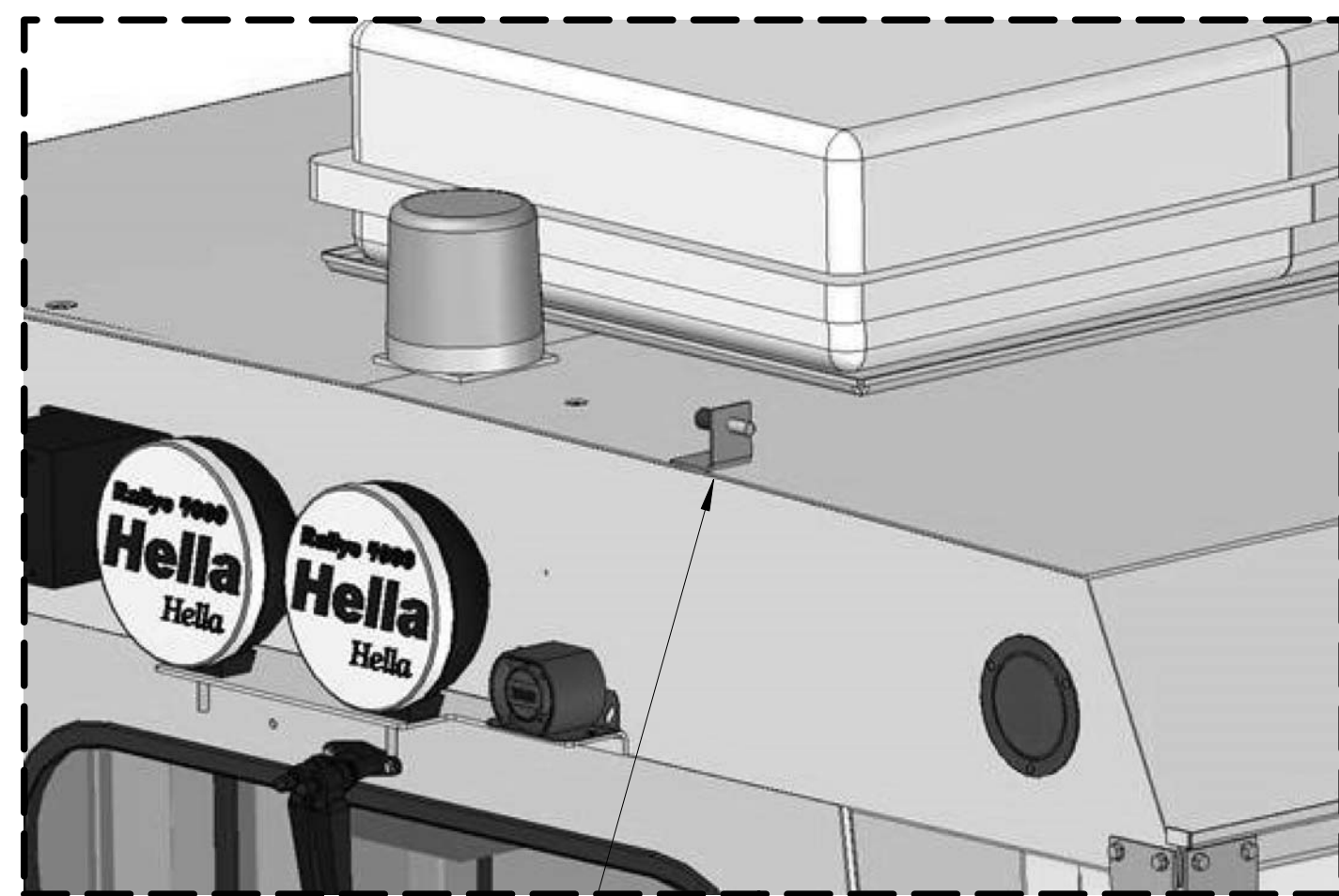
SEE SHEET 6

CAR 3 UP TEMP BLKHD CAR 3, FRONT		PJ09A250 199053		CONNECTOR CAR 3, FRONT		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	MAL	-	J09A200B:MAL	EXISTS	J09A200A:FEM	EXISTS

SEE NOTES 1-4 & 6-7

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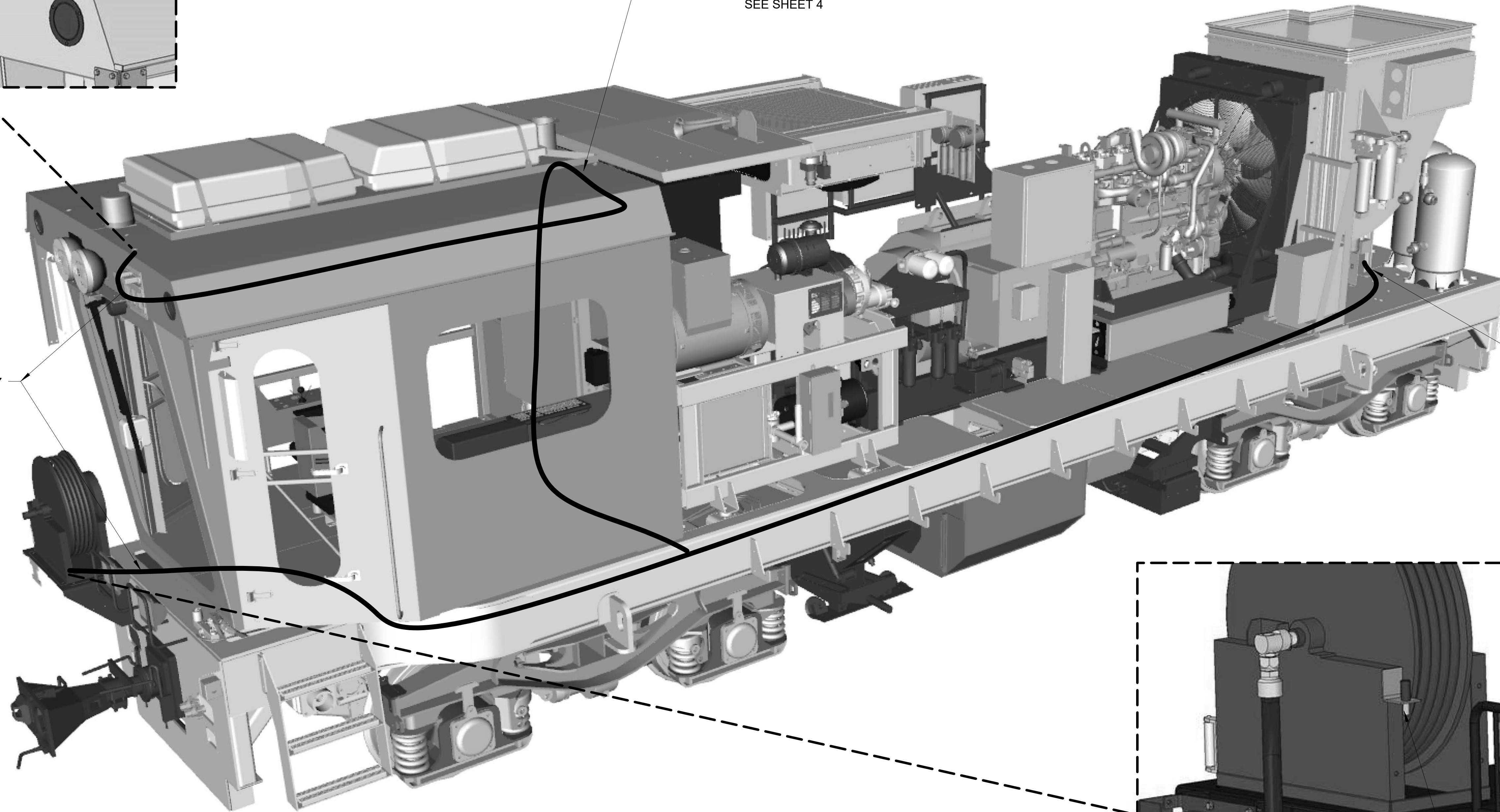
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	EC622179	A	PRELIMINARY RELEASE	ZSJ	03-20-26	KIT, AMBIENT AIR TEMP SENSOR	2	ZSJ	
	EC622200	B	FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26	CABLE CHARTS	NUMBER OF JUPITER SHEETS	REL. DATE:	
						MACHINE TYPE-MODEL:	-	03-20-2026	
						RGE16A1-27	TOTAL NUMBER OF SHEETS	SIZE:	
						E3 PROJECT FILE NAME:	6	D	
						RGE16A1_CAR1&2_18	SCALE:		



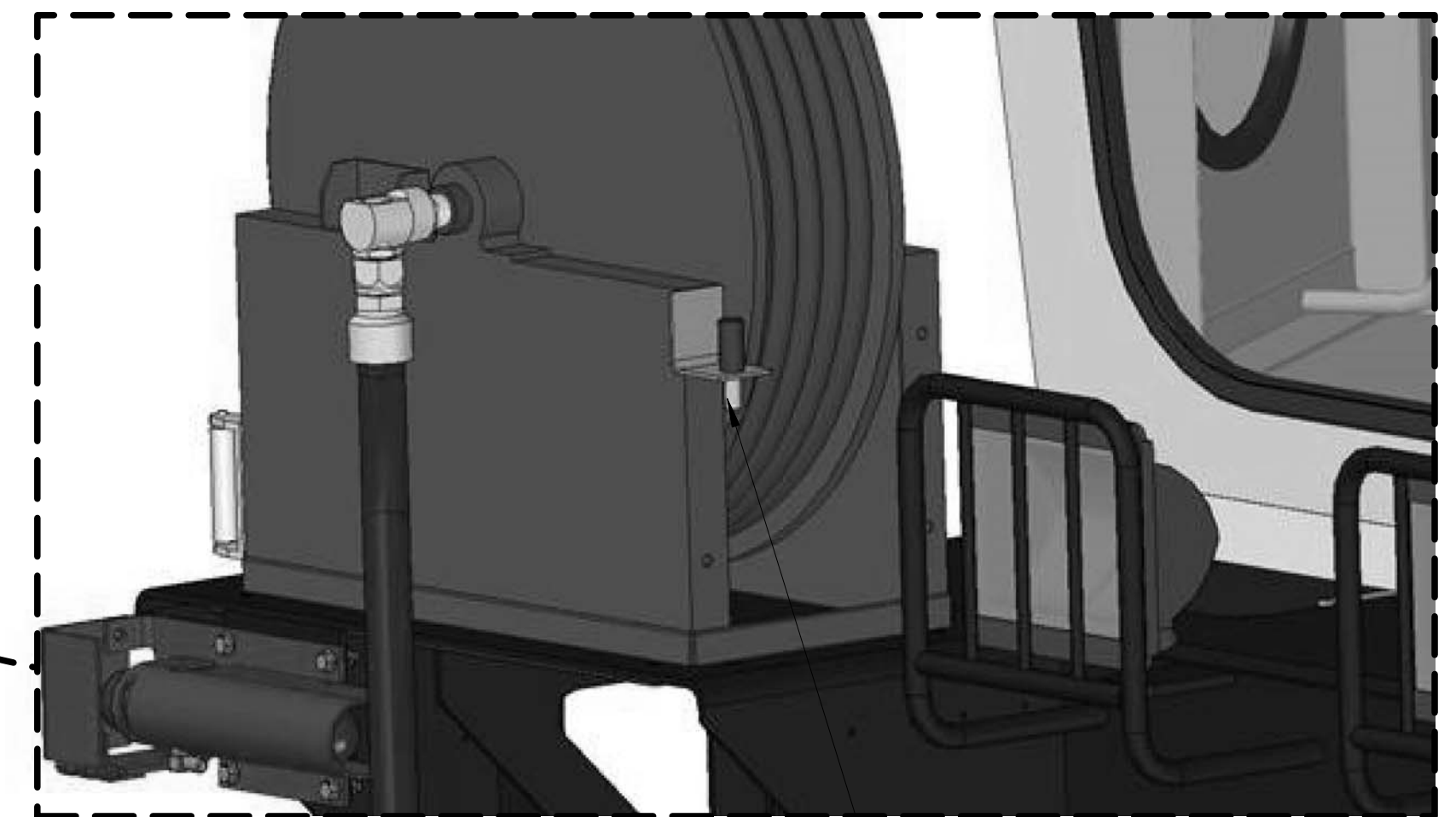
CAR 1 UPPER TEMP RJ11850  
 3401329 J11800A  
 2013713 J11800B  
 SEE SHEET 4 FOR SENSOR  
 MOUNTING DETAILS

SEE NOTES 6 & 7

THROUGH THE MAIN JUNCTION BOX  
 SEE SHEET 4



CAN:11 CAN:11 AI  
 J11700 3401329  
 J11800 3401329



SEE SHEET 4  
 RJ11750 CAR 1 LOWER TEMP  
 J11700A 3401328  
 SEE SHEET 4 FOR SENSOR  
 MOUNTING DETAILS

**CAR 1 CABLE ROUTING OVERVIEW  
 LEFT SIDE OF MACHINE**

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CHANGE #	REVISION	DR	DATE
EC622179	A PRELIMINARY RELEASE	ZSJ	03-20-26
EC622200	B FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26

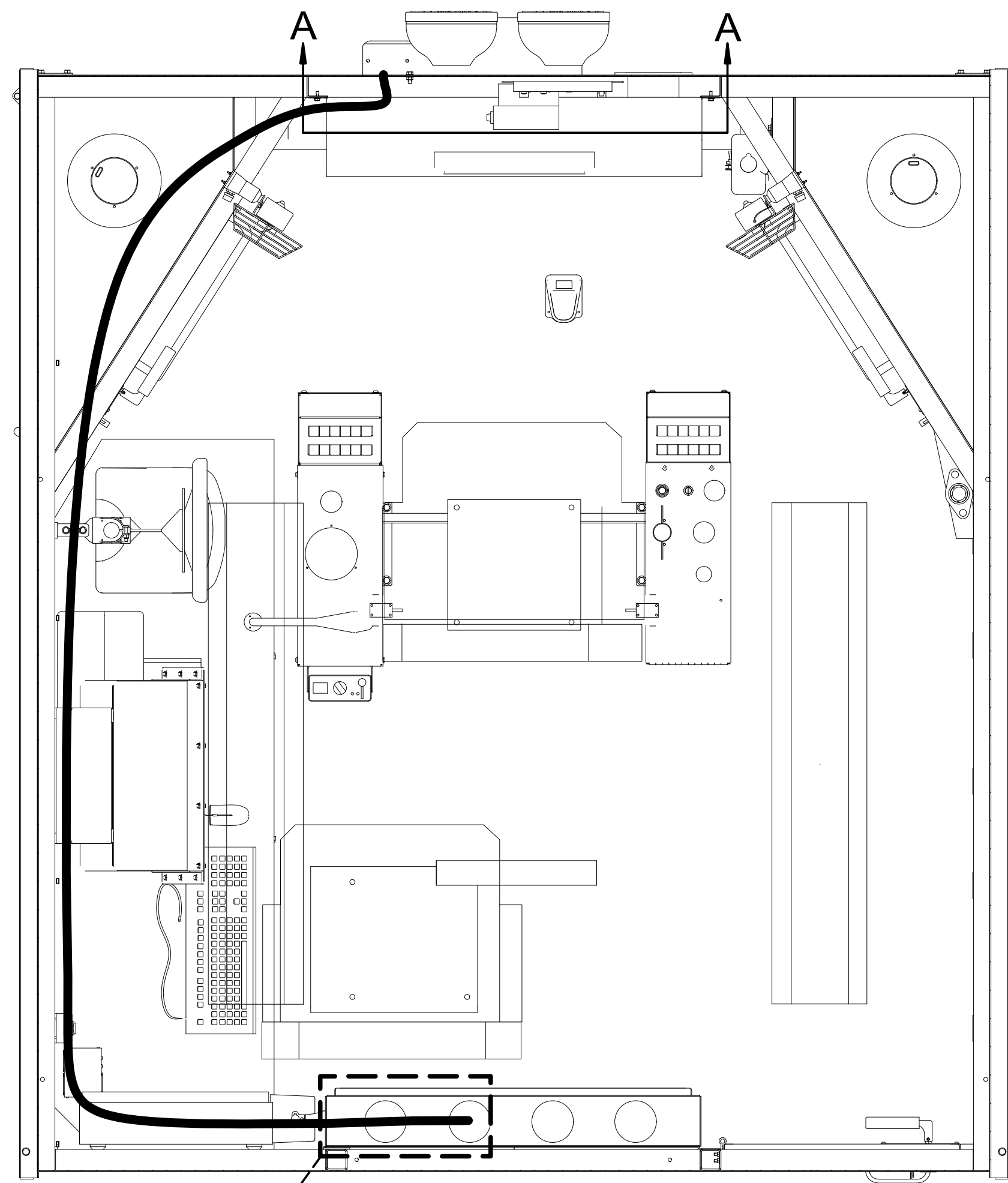
DRAWING TITLE/DESCRIPTION:  
**KIT, AMBIENT AIR TEMP SENSOR  
 CAR 1 CABLE ROUTING**  
 MACHINE TYPE-MODEL:  
**RGE16A1-27**  
 E3 PROJECT FILE NAME:  
**RGE16A1\_CAR1&2\_18**

SHEET NUMBER  
**3**  
 NUMBER OF  
 JUPITER SHEETS  
**-**  
 TOTAL NUMBER  
 OF SHEETS  
**6**

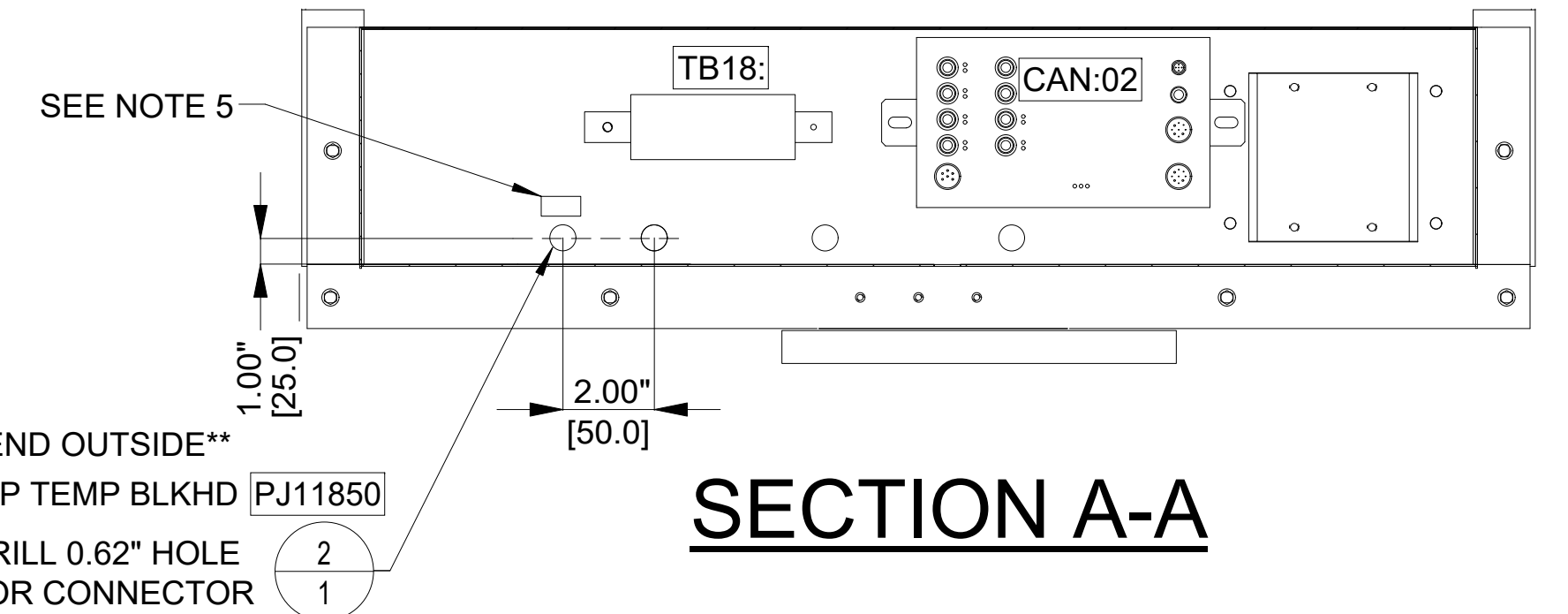
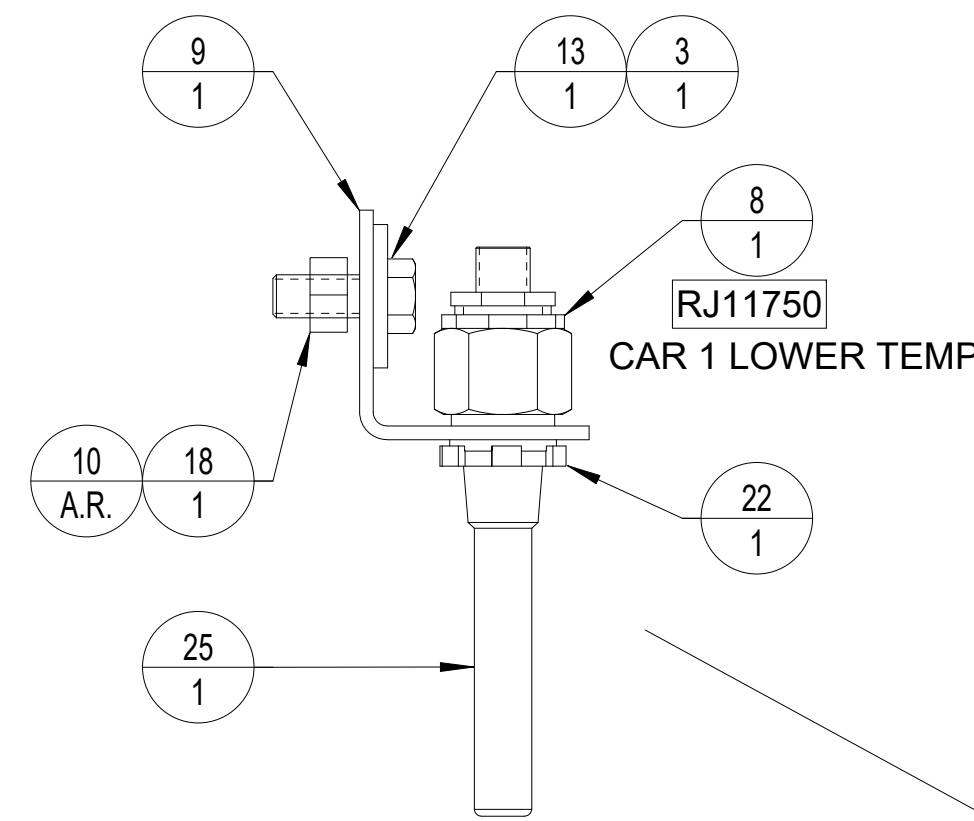
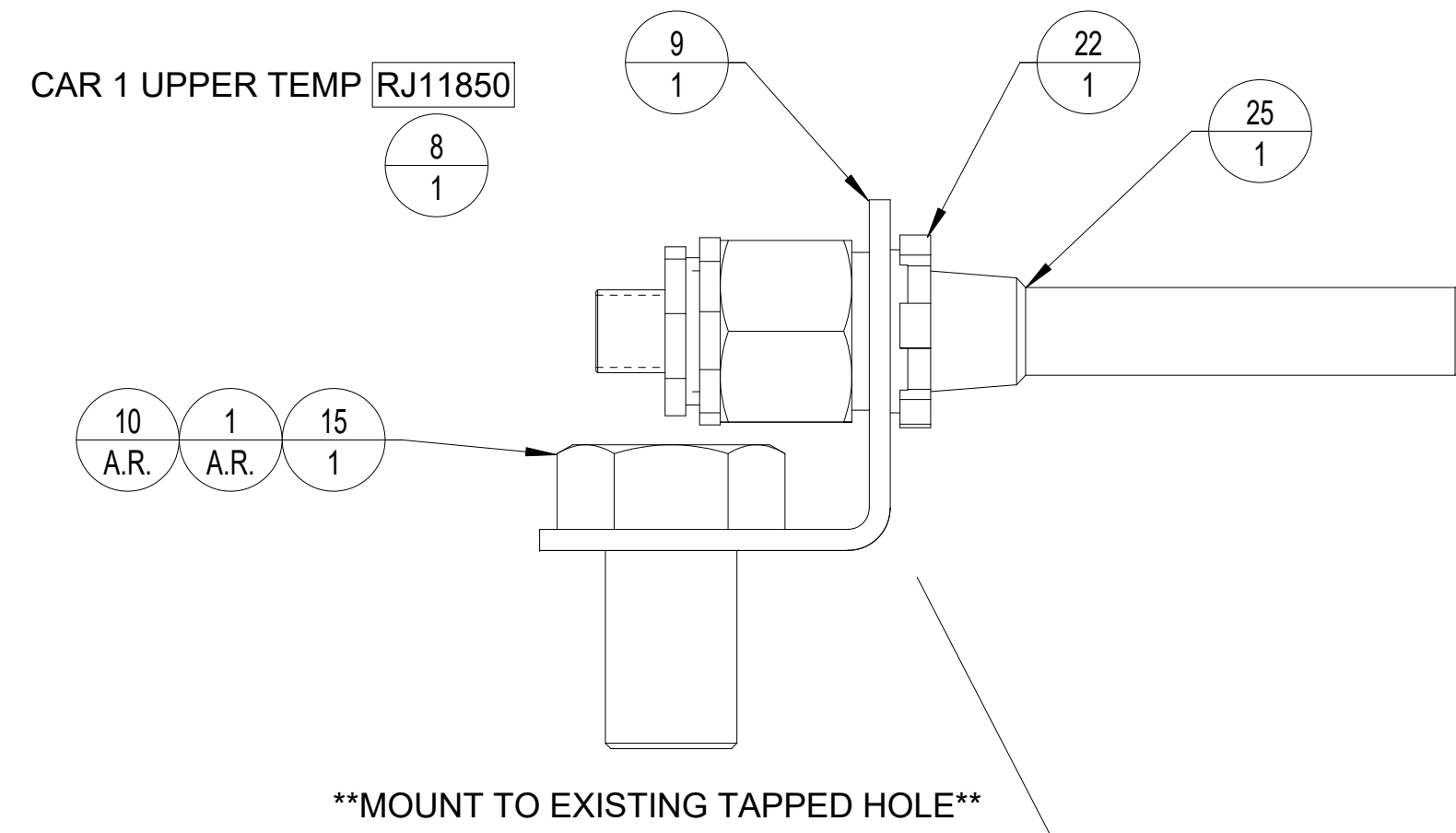
DRAWN BY:  
**ZSJ**  
 REL. DATE:  
**03-20-2026**  
 SIZE:  
**D**  
 SCALE:

**HARSCO**  
 RAIL  
 E3 DRAWING  
**5153823**

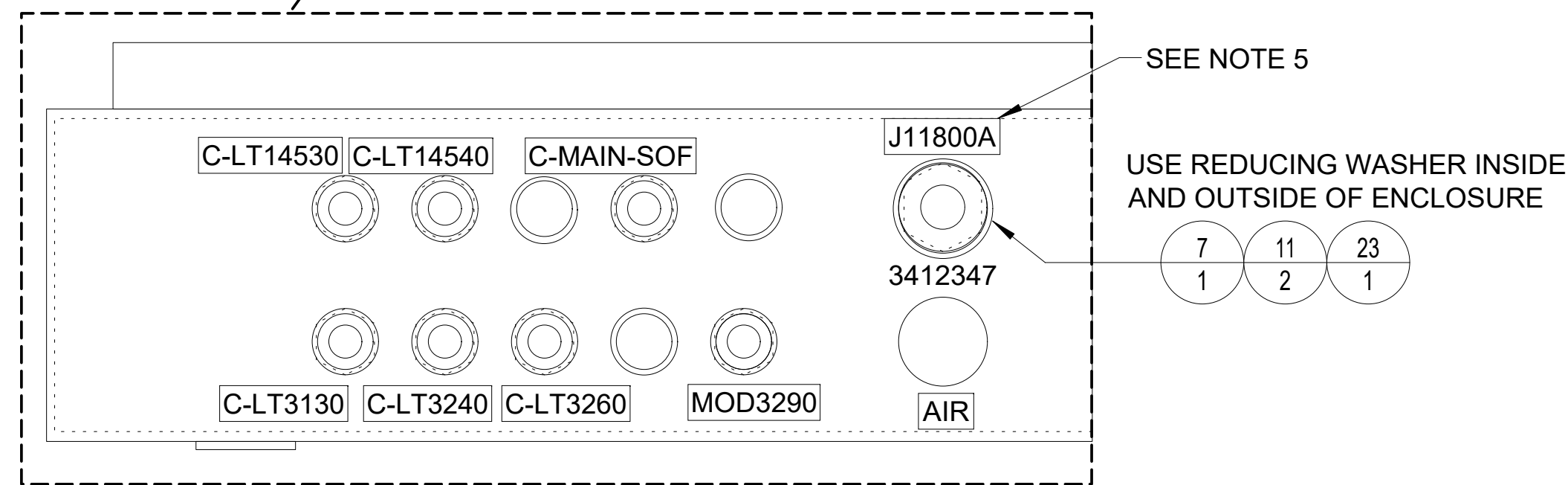
# CAR 1 TEMPERATURE SENSOR WIRING



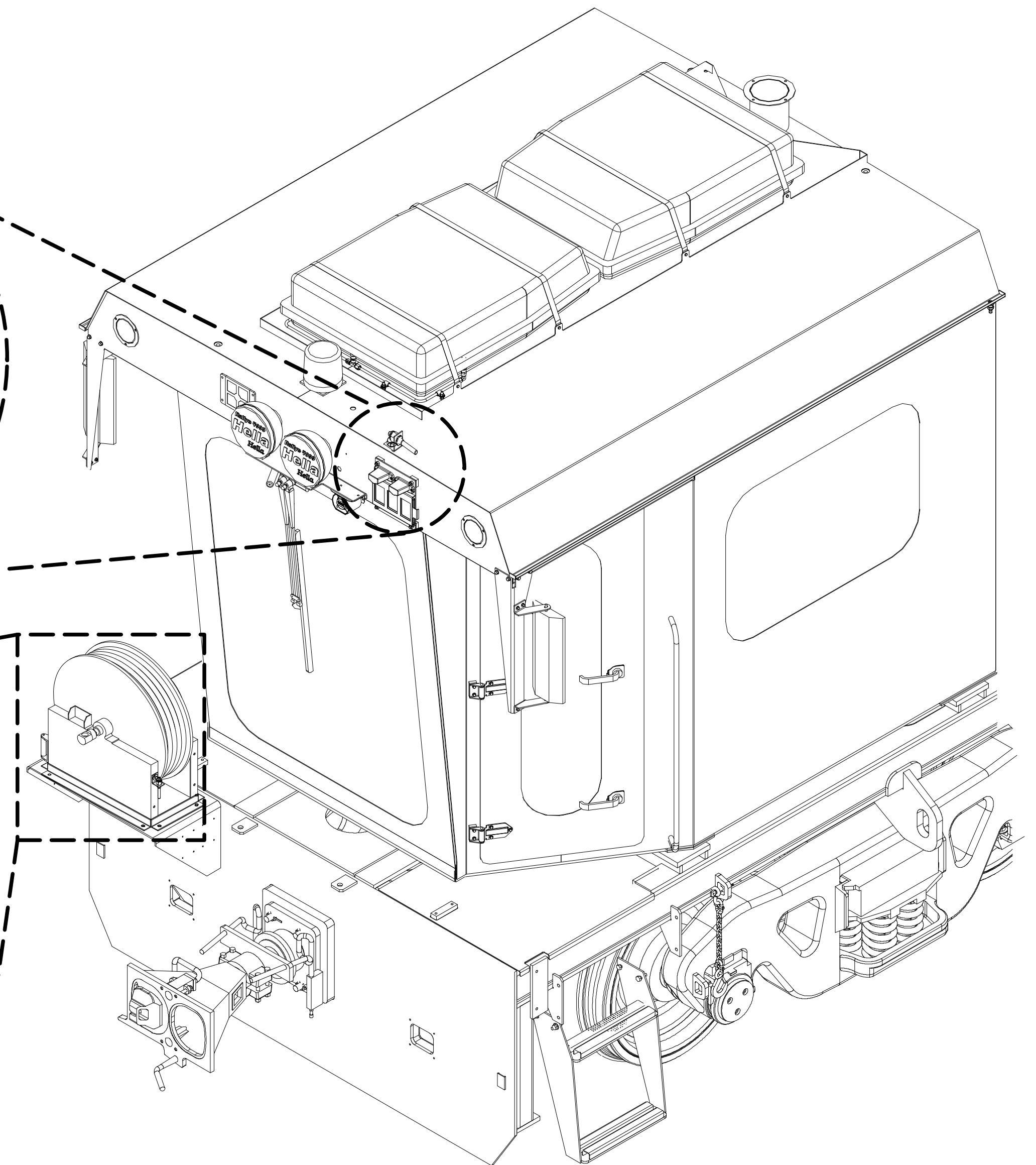
**TOP VIEW OF CAB**



2013713 J11800B - CONNECTED TO FEMALE END ON OUTSIDE OF CAB  
 3401329 J11800A - CONNECTED TO MALE END ON INSIDE OF CAB



**TOP VIEW OF MAIN JUNCTION BOX**



**CAR 1 SENSOR LOCATIONS**

ⓑ

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CHANGE #	REVISION	DR	DATE
EC622179	A PRELIMINARY RELEASE	ZSJ	03-20-26
EC622200	B FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26

DRAWING TITLE/DESCRIPTION: KIT, AMBIENT AIR TEMP SENSOR CAR 1 TEMP SENSOR WIRING
MACHINE TYPE-MODEL: RGE16A1-27
E3 PROJECT FILE NAME: RGE16A1_CAR1&2_18

SHEET NUMBER 4	DRAWN BY: ZSJ
NUMBER OF JUPITER SHEETS -	REL. DATE: 03-20-2026
TOTAL NUMBER OF SHEETS 6	SIZE: D
	SCALE: 

**HARSCO RAIL**

E3 DRAWING

**5153823**

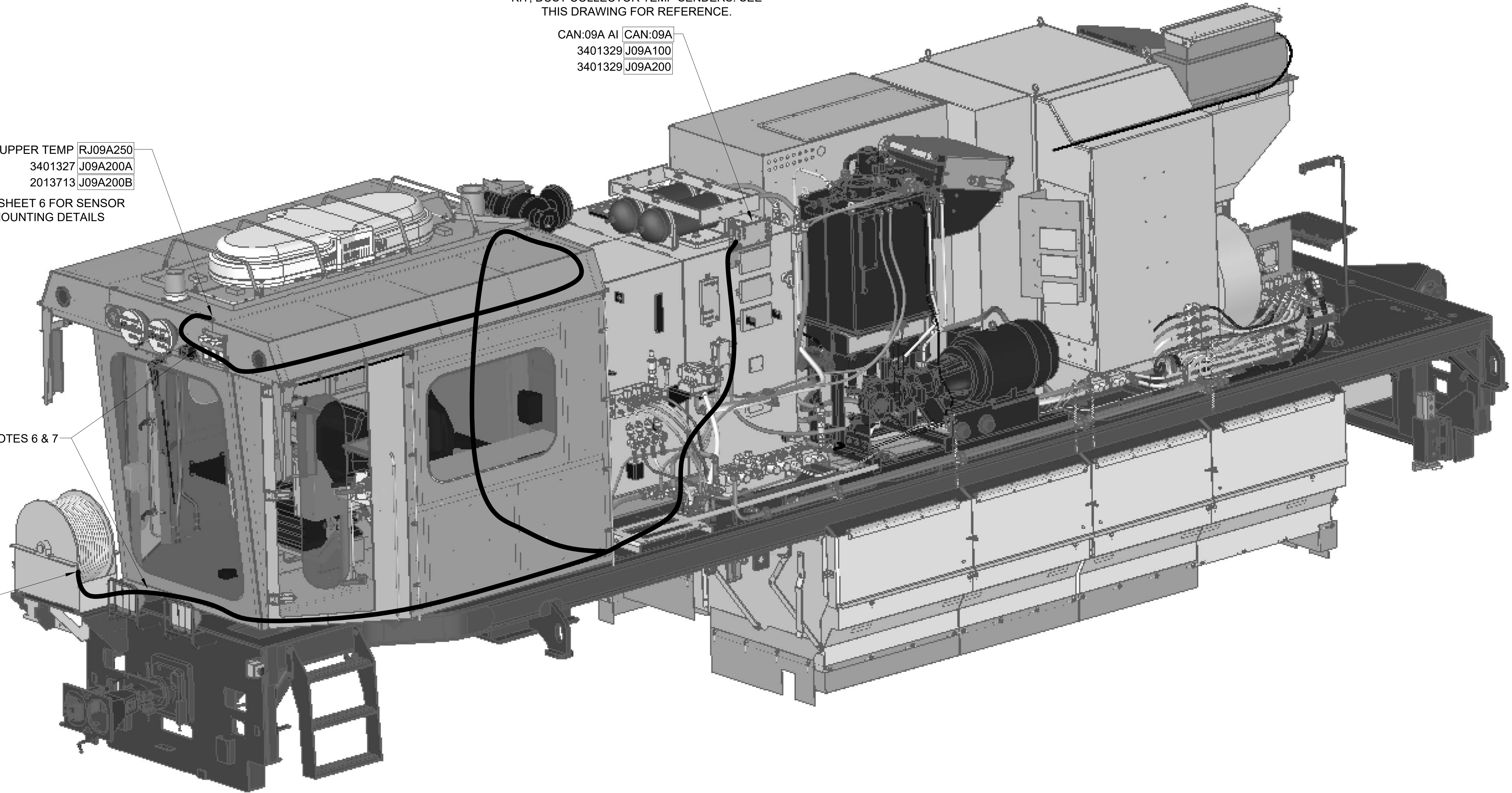
NOTE: CAN:09A IS INCLUDED WITH 5153826  
KIT, DUST COLLECTOR TEMP SENDERS. SEE  
THIS DRAWING FOR REFERENCE.

CAN:09A AI CAN:09A  
3401329 J09A100  
3401329 J09A200

CAR 3 UPPER TEMP RJ09A250  
3401327 J09A200A  
2013713 J09A200B  
SEE SHEET 6 FOR SENSOR  
MOUNTING DETAILS

SEE NOTES 6 & 7

CAR 3 LOWER TEMP RJ09A150  
3401329 J09A100  
SEE SHEET 6 FOR SENSOR  
MOUNTING DETAILS



## CAR 3 CABLE ROUTING OVERVIEW

RIGHT SIDE

Ⓑ

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CHANGE #	REVISION	DR	DATE
EC622179	A PRELIMINARY RELEASE	ZSJ	03-20-26
EC622200	B FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26

DRAWING TITLE/DESCRIPTION: KIT, AMBIENT AIR TEMP SENSOR CAR 3 CABLE ROUTING
MACHINE TYPE-MODEL: RGE16A1-27
E3 PROJECT FILE NAME: RGE16A1_CAR1&2_18

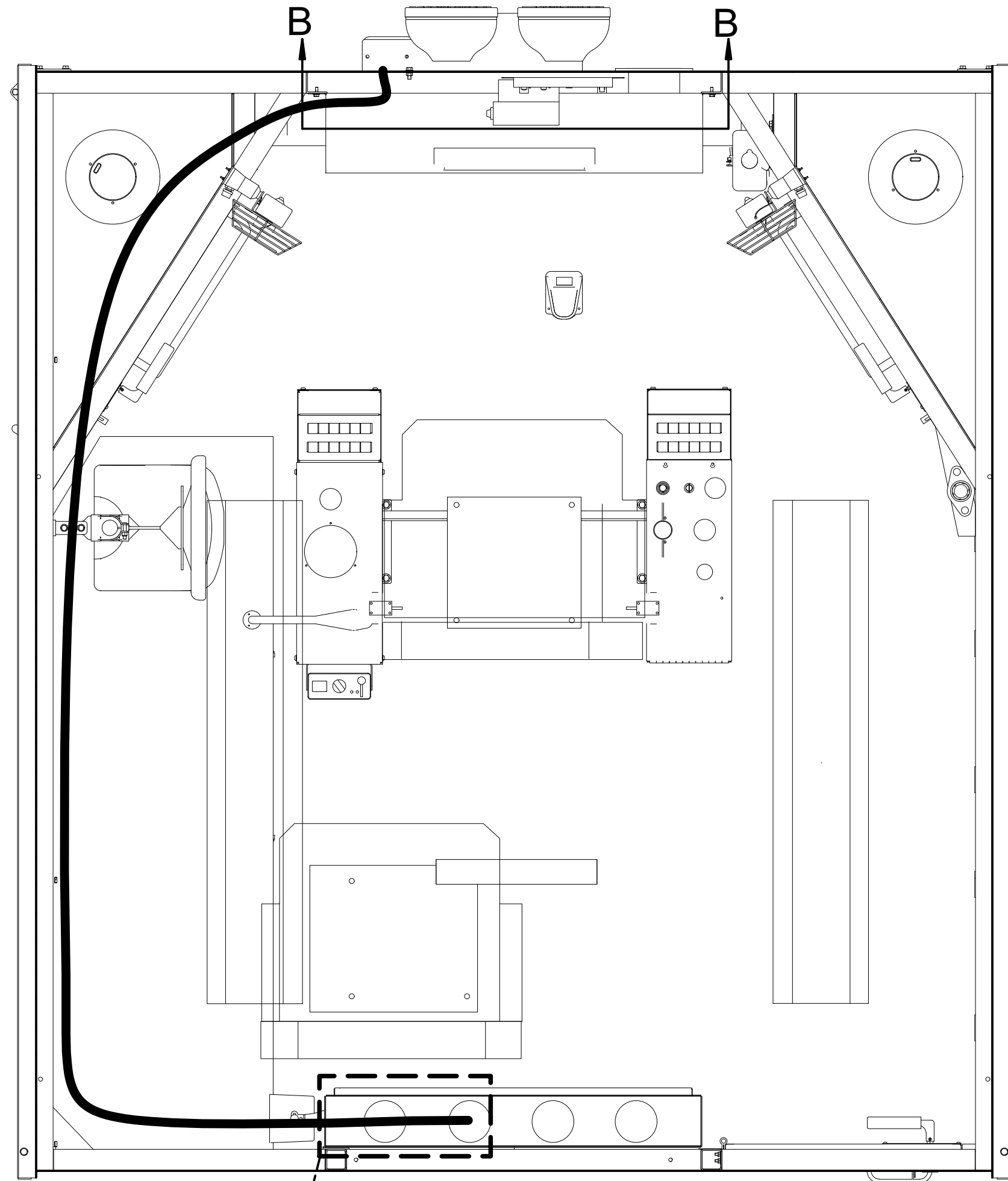
SHEET NUMBER 5	DRAWN BY: ZSJ
NUMBER OF JUPITER SHEETS -	REL. DATE: 03-20-2026
TOTAL NUMBER OF SHEETS 6	SIZE: D
	SCALE: 

**HARSCO**  
RAIL

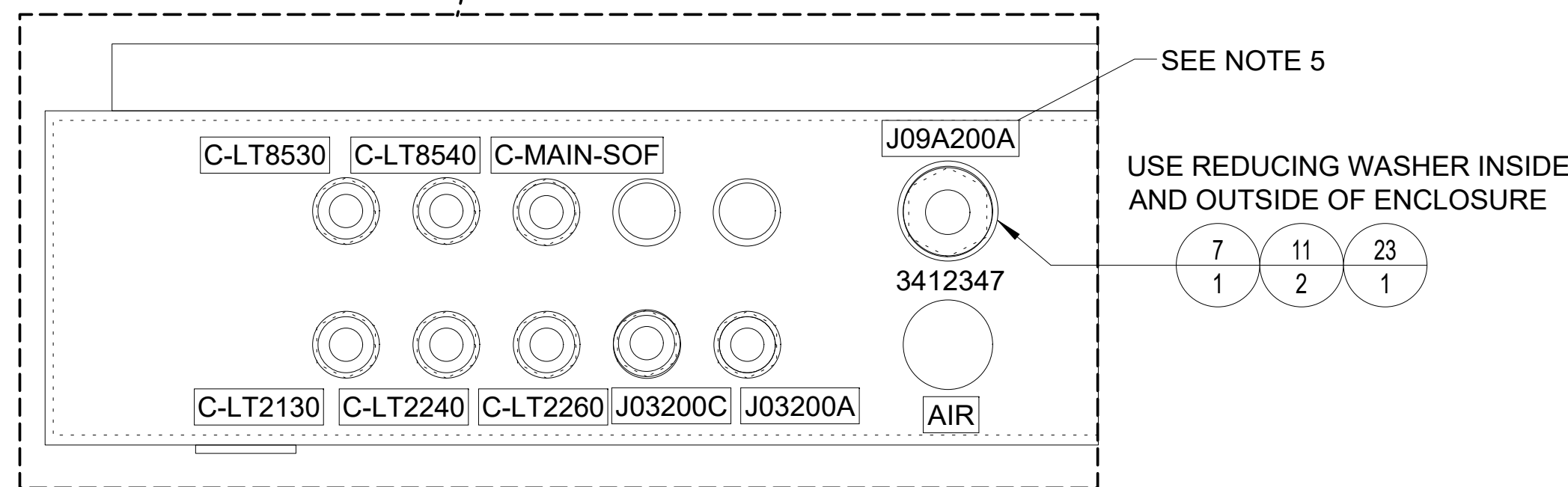
E3 DRAWING

**5153823**

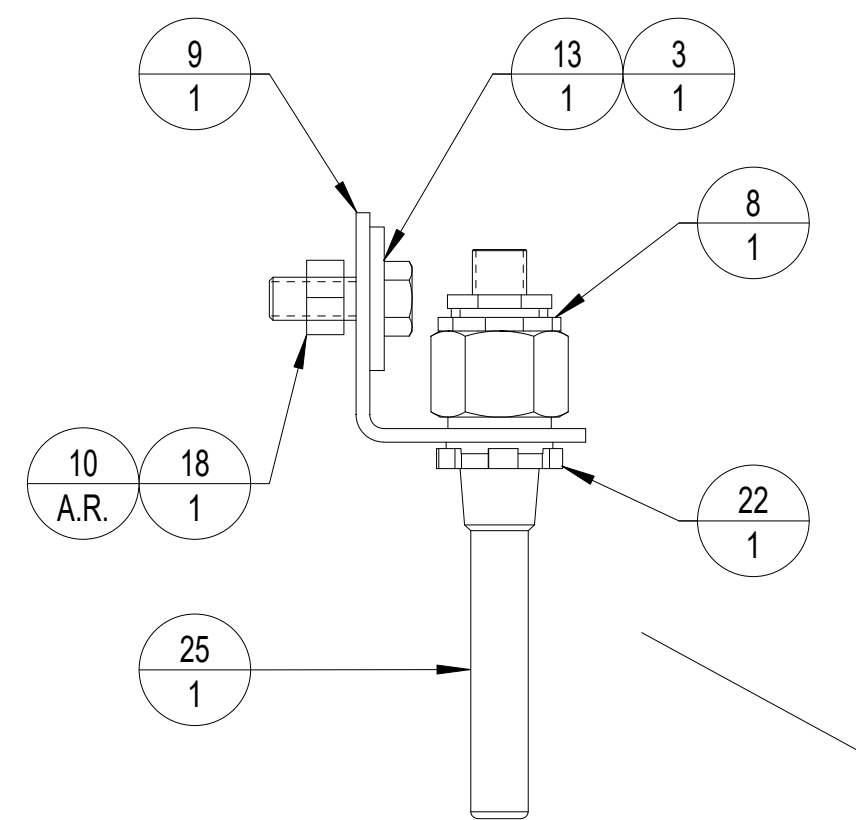
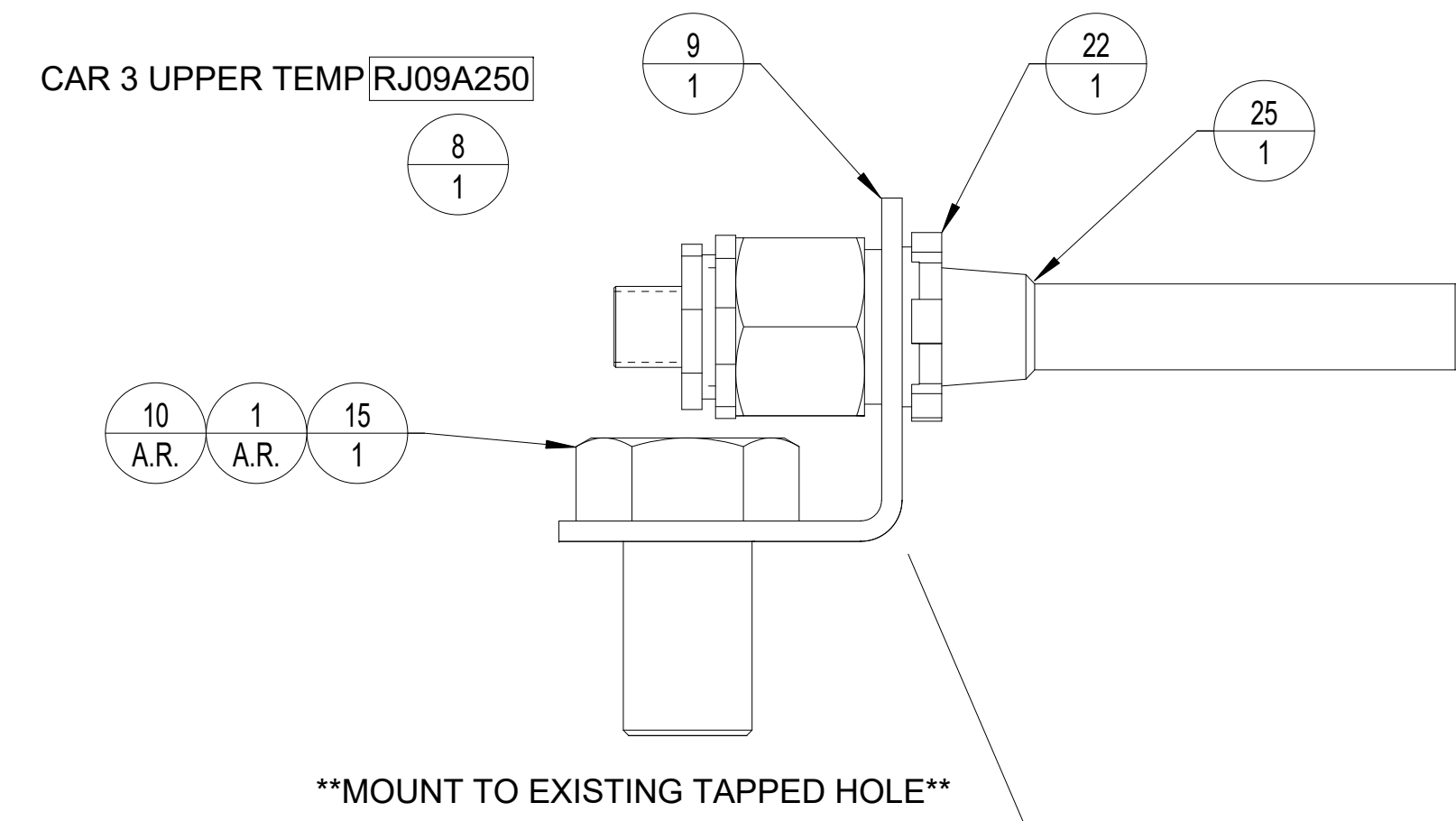
# CAR 3 TEMPERATURE SENSOR WIRING



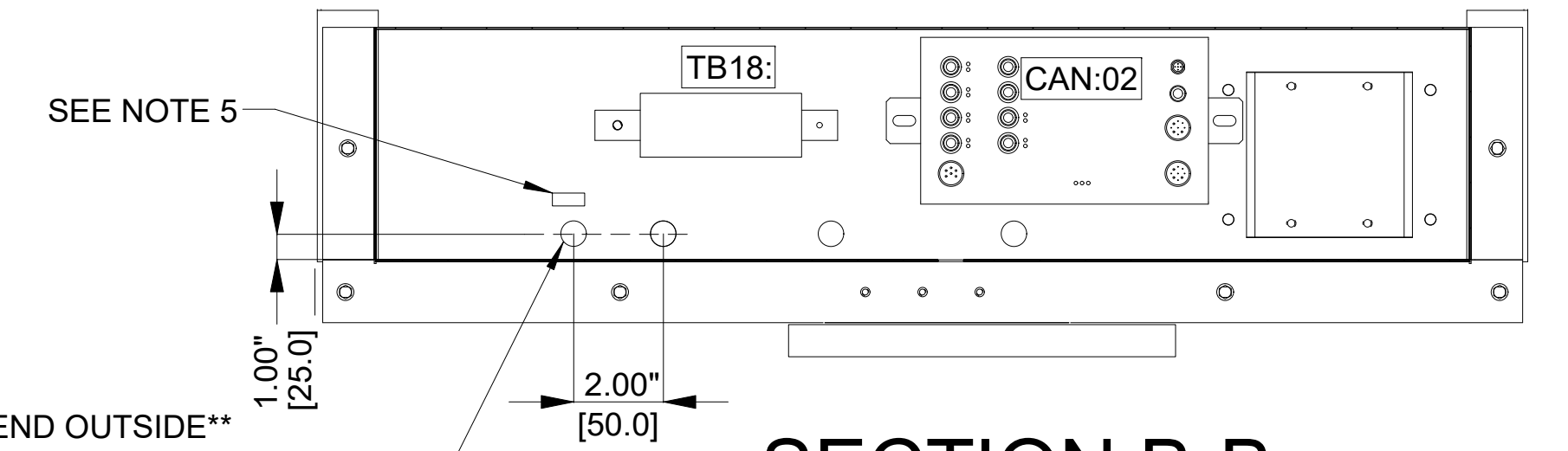
**TOP VIEW OF CAB**



**TOP VIEW OF MAIN JUNCTION BOX**



MOUNT SENSOR TO EXISTING HOLE AS SHOWN, OR TO THE EXISTING HOLE BELOW. IF THERE ARE CLEARANCE ISSUES, TAP A 0.38" HOLE ON HOSE REEL.



**SECTION B-B**

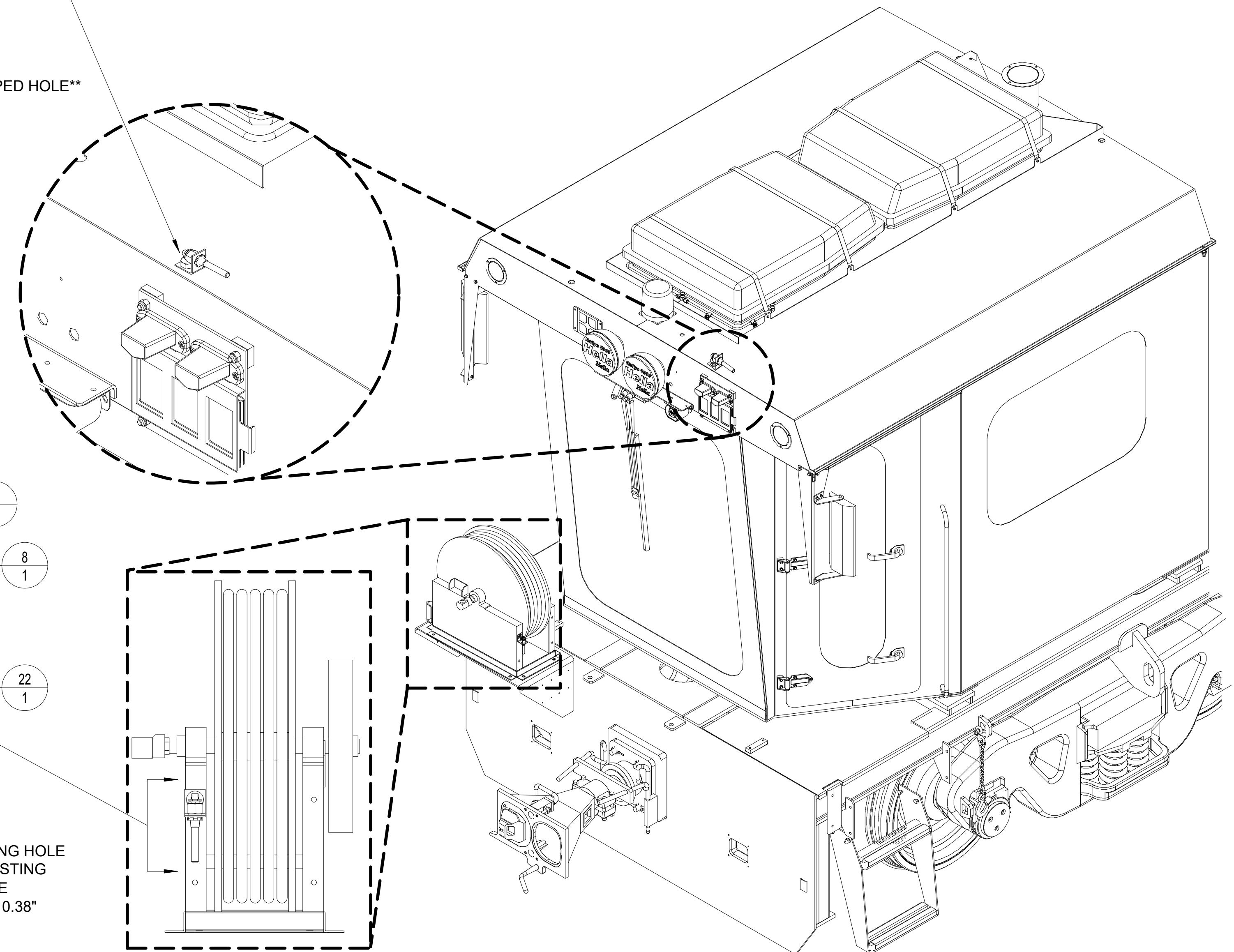
\*\*FEMALE END OUTSIDE\*\*

CAR 3 UP TEMP BLKHD PJ09A250

DRILL 0.62" HOLE FOR CONNECTOR

2013713 J09A200B - CONNECTED TO FEMALE END ON OUTSIDE OF CAB

3401327 J09A200A - CONNECTED TO MALE END ON INSIDE OF CAB



**CAR 3 SENSOR LOCATIONS**

(B)

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	EC622179	A	PRELIMINARY RELEASE	ZSJ	03-20-26	KIT, AMBIENT AIR TEMP SENSOR	6		ZSJ
	EC622200	B	FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26	CAR 3 TEMP SENSOR WIRING	NUMBER OF JUPITER SHEETS		REL. DATE:
						MACHINE TYPE-MODEL:	-		03-20-2026
						RGE16A1-27	TOTAL NUMBER OF SHEETS		SIZE:
					E3 PROJECT FILE NAME:	6	D	SCALE:	
					RGE16A1_CAR1&2_18				

BILL OF MATERIAL				
ITEM	PART #	QTY	PART DESCRIPTION	
ⓑ 1	3401329	1	CABLE ASSEMBLY, M12	: 10M M12-M/F 18AWG/5 COND SHLD LSZH
2	D8197Y18	8	TAGS, CABLE	: PLASTIC CABLE TAG SLEEVE
3	F008461	10	CLAMP, P	: 0.31 ID, MOUNT HOLE 0.28 DIA, NON-INSULATED
4	F014765	10	SCREW	: 1/4-20 X 1/2 SELF TAP SCREW
5	F016578	15	TY-RAP	: MEDIUM 7.31"
6	F018229	10	TY-RAP	: SMALL 3.5"
7	H5133WAP	2	SENSOR, TEMPERATURE	: TEMPERATURE SENDER W / M12
ⓑ 8	3401327	1	CABLE ASSEMBLY, M12	: 5M M12-M/F 18AWG/5 COND SHLD LSZH
ⓑ 9	F012024	2	PIPE BUSHING	: 3/8 FNPT - 3/4 NPT

NOTES:

1. ALL WIRES & CONDUCTORS SHALL BE LABELED (WIRE MARKERS) USING A SLEEVE TYPE NUMBERING SYSTEM.

WIRES ARE TO BE LABELED ON BOTH ENDS EXCEPT WHERE:

- OVERALL WIRE LENGTH IS LESS THAN 4"

- WIRES ARE TERMINATED IN A CONNECTOR (VEAM, CANNON, DIN, ETC.)

2. USE SUPPLIED TY-RAPS AS REQUIRED TO SECURE CABLES AND WIRES NEATLY.

DO NOT USE TY-RAPS IN WIRE TRAYS OR CONDUIT.

3. ROUTE WIRES PER DIAGRAM AND CABLE CHARTS. MAKE ALL CORNERS AS SQUARE AS POSSIBLE.

4. ALL CABLES SHALL BE LABELED WITH CABLE MARKERS PLACED IN D8197Y18-SLEEVES PER CABLE CHARTS.

SECURE SLEEVE TO BOTH ENDS OF THE CABLE USING F018229-TY-RAP 2" FROM BOX AND 6" FROM THE FREE END.

ONCE SECURED CENTER MARKER AND TRIM EXCESS SLEEVE ENDS.

5. USE SUPPLIED P-CLAMPS AND SELF TAPPING HARDWARE AS REQUIRED TO SECURE CABLES NEATLY.

6. A FILE CONTAINING ALL WIRE, CABLE, & COMPONENT LABELS FOR THIS ASSEMBLY HAS BEEN LOADED AS A DATASET IN TEAMCENTER.

REFERENCE DRAWINGS

INCLUDE A COPY OF THE FOLLOWING DRAWINGS WITH THIS KIT

DRAWING #	DESCRIPTION
3411290	ELECTRICAL SCHEMATIC, CAR 1 & 2
5153824	KIT, AIR COMP TEMP MONITOR

NOTE: PLACE PRINTED DEVICE LABELS, CABLE TAGS, AND WIRE NUMBERS IN PLASTIC BAG AND INCLUDE WITH THIS KIT. SEE NOTE 6.

NEW CABLES

AIR COMP OIL TEMP ENCL		J11500 3401327		SEE SHEET 3 CABLE ASSEMBLY, M12 AIR COMP		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:11:C5	EXISTS	SJ11567:M12	EXISTS

AIR COMP AIR TEMP ENCL		J11600 3401329		SEE SHEET 3 CABLE ASSEMBLY, M12 WET TANK		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:11:C6	EXISTS	SJ11667:M12	EXISTS

SEE NOTES 1-5

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CHANGE #		REVISION	DR	DATE
EC622179	A	PRELIMINARY RELEASE	ZSJ	03-20-26
EC622200	B	FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26

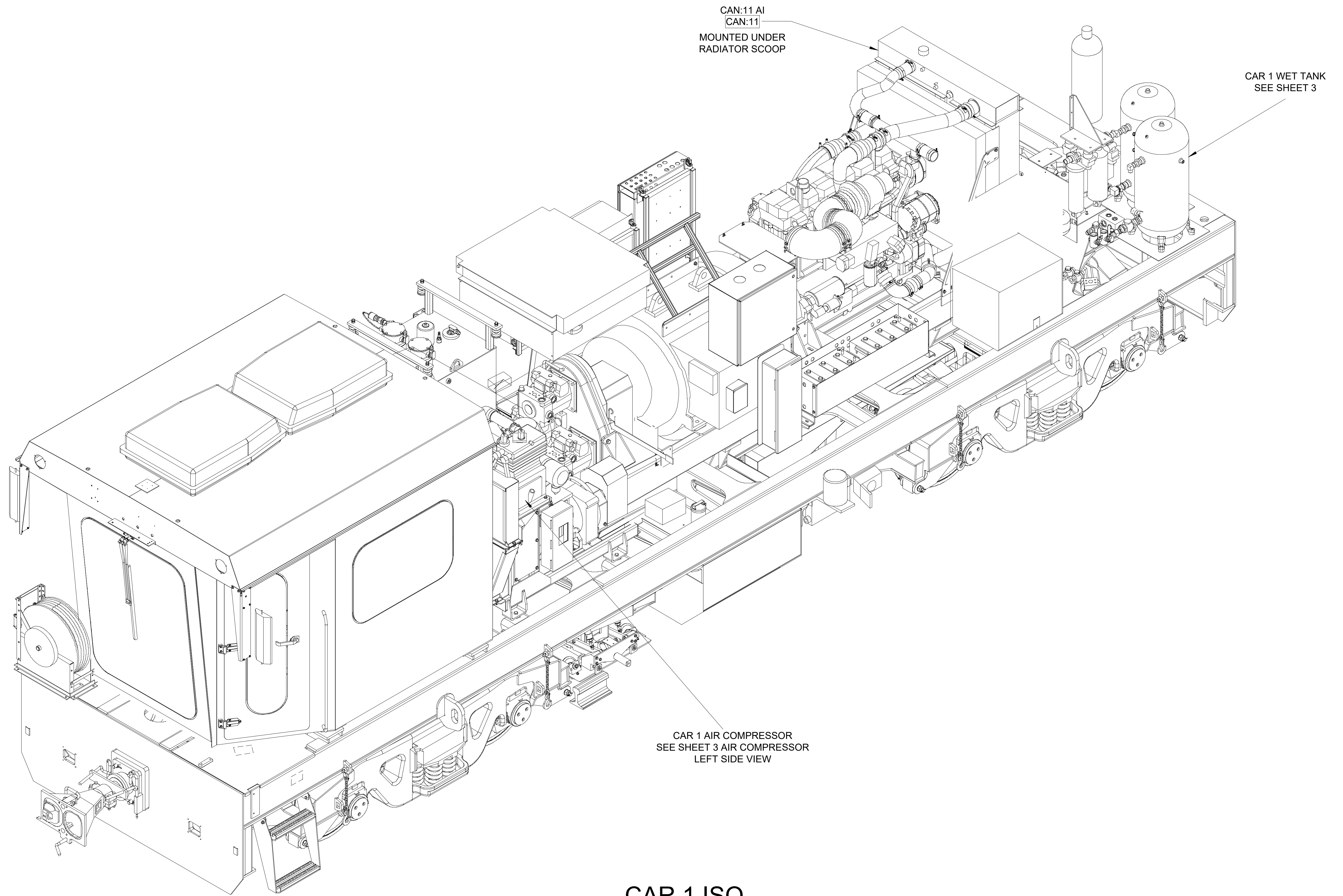
DRAWING TITLE/DESCRIPTION: KIT, AIR COMP TEMP MONITOR BOM, NOTES & CABLE CHARTS
MACHINE TYPE-MODEL: RGE16A1-27
E3 PROJECT FILE NAME: RGE16A1_CAR1&2_18

SHEET NUMBER 1	DRAWN BY: ZSJ
NUMBER OF JUPITER SHEETS -	REL. DATE: 03-20-2026
TOTAL NUMBER OF SHEETS 3	SIZE: D
	SCALE:

**HARSCO**  
RAIL

E3 DRAWING

**5153824**



**CAR 1 ISO**

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CHANGE #	REVISION	DR	DATE
EC622179	A PRELIMINARY RELEASE	ZSJ	03-20-26
EC622200	B FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26

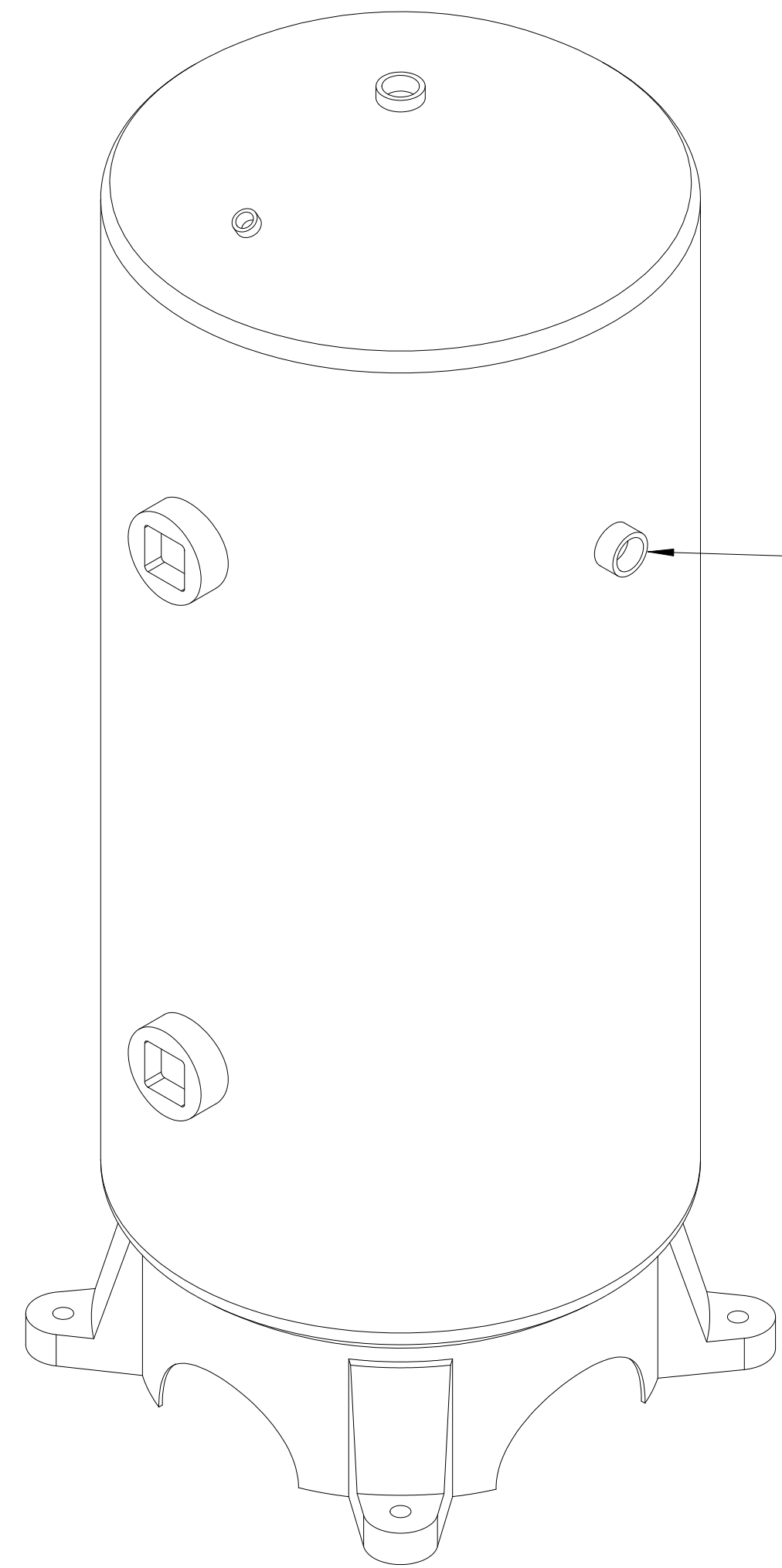
DRAWING TITLE/DESCRIPTION: <b>KIT, AIR COMP TEMP MONITOR CAR 1 ISO</b>	
MACHINE TYPE-MODEL: <b>RGE16A1-27</b>	
E3 PROJECT FILE NAME: <b>RGE16A1_CAR1&amp;2_18</b>	

SHEET NUMBER <b>2</b>	DRAWN BY: <b>ZSJ</b>
NUMBER OF JUPITER SHEETS <b>-</b>	REL. DATE: <b>03-20-2026</b>
TOTAL NUMBER OF SHEETS <b>3</b>	SIZE: <b>D</b>
	SCALE: 

**HARSCO**  
RAIL

E3 DRAWING

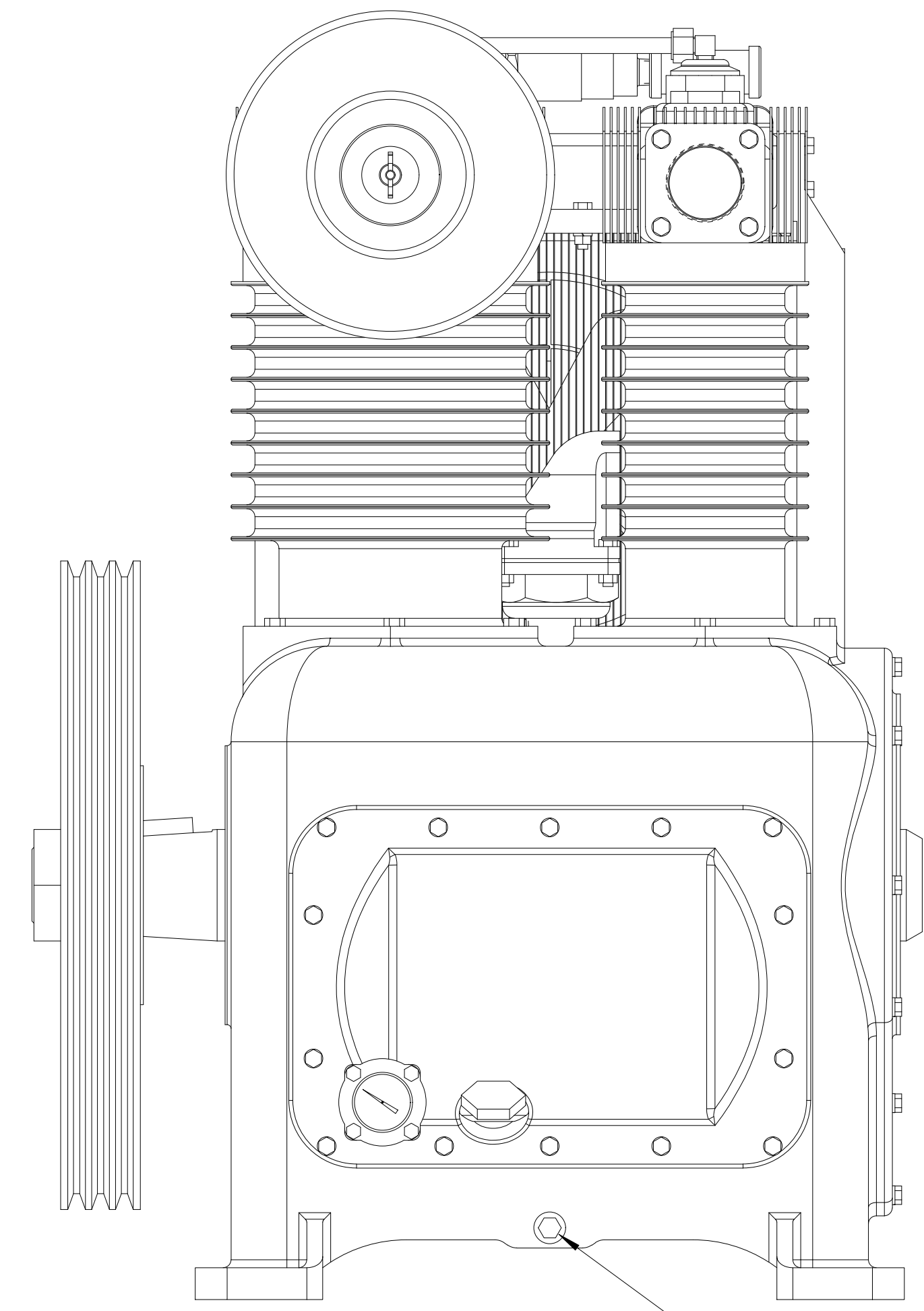
**5153824**



7 9  
1 1  
SJ11667 AIR COMP AIR TEMP  
J11600 3401329

NOTE: REMOVE EXISTING PLUG.  
USE LIQUID PIPE THREAD SEALANT  
WHEN THREADING IN THE PIPE  
BUSHING AND TEMP SENSOR.

**CAR 1 WET TANK**



7 9  
1 1  
SJ11567 AIR COMP OIL TEMP  
J11500 3401327

NOTE: REMOVE EXISTING PLUG.  
USE LIQUID PIPE THREAD SEALANT  
WHEN THREADING IN THE PIPE  
BUSHING AND TEMP SENSOR.

**AIR COMPRESSOR  
LEFT SIDE**

NOTE: IF THIS AREA SHOWN IS TOO CONGESTED, THERE  
IS ANOTHER DRAIN PORT ON THE RIGHT SIDE OF THE  
AIR COMPRESSOR THAT CAN BE USED.

ⓑ

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CHANGE #	REVISION	DR	DATE
EC622179	A PRELIMINARY RELEASE	ZSJ	03-20-26
EC622200	B FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26

DRAWING TITLE/DESCRIPTION:  
**KIT, AIR COMP TEMP MONITOR  
CAR 1 WET TANK & AIR COMP**

MACHINE TYPE-MODEL:  
**RGE16A1-27**

E3 PROJECT FILE NAME:  
**RGE16A1\_CAR1&2\_18**

SHEET NUMBER 3	DRAWN BY: ZSJ
NUMBER OF JUPITER SHEETS -	REL. DATE: 03-20-2026
TOTAL NUMBER OF SHEETS 3	SIZE: D
	SCALE: 

**HARSCO RAIL**

E3 DRAWING

**5153824**

BILL OF MATERIAL			
ITEM	PART #	QTY	PART DESCRIPTION
1	251203-64	2	SCREW, METRIC : SCREW, PAN HD, M4 X 30MM, GR4.8, ZP
2	409442	2	NUT, METRIC : NUT, HEX FLG SRT, M4, GR8, ZP
3	2013760	10 FT	WIRE : 1.5 SQ.MM (16AWG) GRAY, HALOGEN FREE, 600/1000V
4	3426844	1	TRANSFORMER, CURRENT : DC CURRENT TRANSFORMER USED W/3426842
5	5153868	1	RELAY, CURRENT : DC CURRENT CONTROLLER, DC SUPPLY POWER
6	F009863	5	TERMINAL, BUTT : BUTT CONNECTOR, 16-14AWG, INSULATED
7	F016578	10	TY-RAP : MEDIUM 7.31"
8	F019381	6	TERMINAL, SPADE : 1/4" FEMALE, 16-14 AWG, FULLY INSULATED
9	0-3250001-0-45	2	FERRULE : 16 AWG INSULATED BLACK

ⓑ  
**K2530 WIRING**

WIRING CHART								
RUN	WIRE	SIZE	COLOR	FROM	TERM NO.	TO	TERM NO.	PART NO
1	000	1.50 mm <sup>2</sup>	Gray	K2530:V-	F019381	TB2:27	-	2013760
2	2243	1.50 mm <sup>2</sup>	Gray	K2530:CT+	0-3250001-0-45	T2243:+	F009863	2013760
3	2245	1.50 mm <sup>2</sup>	Gray	K2530:CT-	0-3250001-0-45	T2243:-	F009863	2013760
4	2460	1.50 mm <sup>2</sup>	Gray	K2530:V+	F019381	TB1:5	-	2013760
5	2460	1.50 mm <sup>2</sup>	Gray	K2530:COM	F019381	TB1:5	-	2013760

SEE NOTES 1-3

ⓑ  
**EXISTING CABLE - REWORK**

DEADMAN ACTIVATE MAIN JB				J04700 3401339	CABLE ASSEMBLY, M12 MAIN JB		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.	
1	WH-1	J04727	CAN:04:C7	EXISTS	KJ04725:14	EXISTING	
2	WH-2	2545	CAN:04:C7	EXISTS	K2530:NC	F019381	**
3	WH-3	J04725	CAN:04:C7	EXISTS	KJ04725:13	EXISTING	
4	WH-4	2550	CAN:04:C7	EXISTS	K2530:NO	F019381	**

J04700 REWORK NOTES:

- CABLE J04700, RUNS 1 & 2 ARE IN THE EXISTING MAIN JUNCTION BOX.
- RUNS 2 & 3 (\*\*) ARE THE NEW CONNECTIONS THAT NEED TO BE LANDED. IF THE EXISTING LEADS WH-1 AND WH-2 DO NOT REACH K2530, EXTEND LEADS USING WIRE 2013760 AND F019381 BUTT SPLICE.

NOTES:

- ALL WIRES & CONDUCTORS SHALL BE LABELED (WIRE MARKERS) USING A SLEEVE TYPE NUMBERING SYSTEM. WIRES ARE TO BE LABELED ON BOTH ENDS EXCEPT WHERE:  
- OVERALL WIRE LENGTH IS LESS THAN 4"  
- WIRES ARE TERMINATED IN A CONNECTOR (VEAM, CANNON, DIN, ETC.)
- USE SUPPLIED TY-RAPS AS REQUIRED TO SECURE CABLES AND WIRES NEATLY. DO NOT USE TY-RAPS IN WIRE TRAYS OR CONDUIT.
- ROUTE WIRES PER DIAGRAM AND CABLE CHARTS. MAKE ALL CORNERS AS SQUARE AS POSSIBLE.
- A FILE CONTAINING ALL WIRE, CABLE, & COMPONENT LABELS FOR THIS ASSEMBLY HAS BEEN LOADED AS A DATASET IN TEAMCENTER.

**REFERENCE DRAWINGS**

INCLUDE A COPY OF THE FOLLOWING DRAWINGS WITH THIS KIT

DRAWING #	DESCRIPTION
3411290	ELECTRICAL SCHEMATIC, CAR 1 & 2
5153825	KIT, INTERCOOLER FAN RUNNING

NOTE: PLACE PRINTED DEVICE LABELS, CABLE TAGS, AND WIRE NUMBERS IN PLASTIC BAG AND INCLUDE WITH THIS KIT. SEE NOTE 4.

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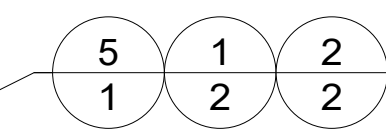
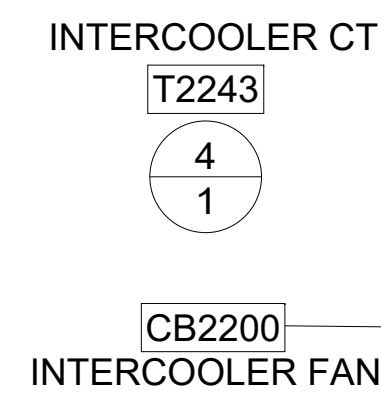
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CHANGE #		REVISION	DR	DATE	DRAWING TITLE/DESCRIPTION:	SHEET NUMBER	DRAWN BY:	<b>HARSCO</b> RAIL
EC622179	A	PRELIMINARY RELEASE	ZSJ	03-20-26	KIT, INTERCOOLER FAN RUNNING BOM, NOTES, & CABLE & WIRE CHARTS	1	ZSJ	
EC622200	B	FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26		NUMBER OF JUPITER SHEETS	REL. DATE: 03-20-2026	
					MACHINE TYPE-MODEL:	-	SIZE: D	
					RGE16A1-27	TOTAL NUMBER OF SHEETS	SCALE:	
					E3 PROJECT FILE NAME:	2		E3 DRAWING
					RGE16A1_CAR1&2_18			<b>5153825</b>

# CAR 1 MAIN JUNCTION BOX - BOTTOM LEFT SIDE

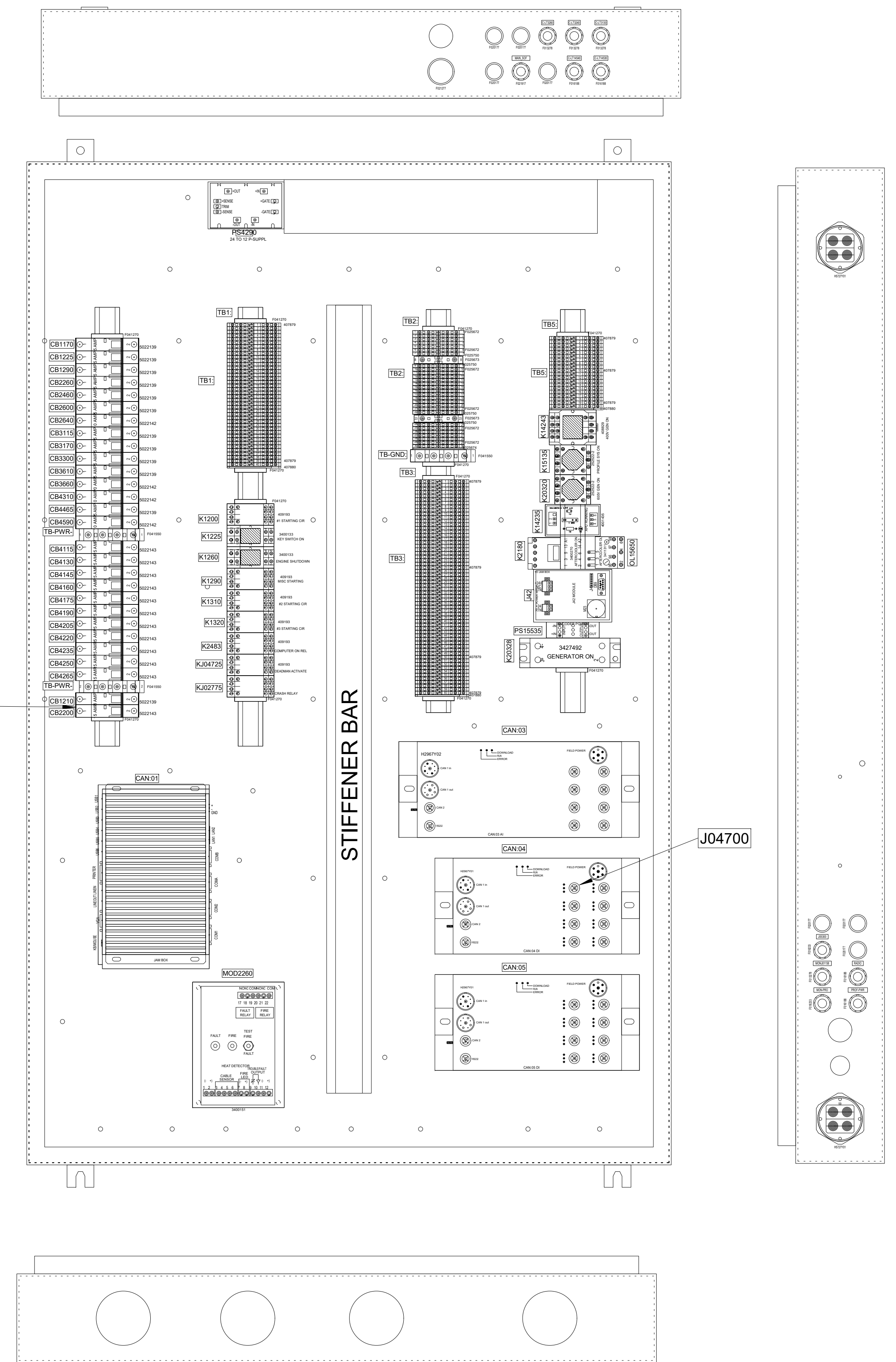


- INTERCOOLER CT INSTALLATION NOTES:**
1. DISCONNECT THE WIRE (SIGNAL #2200) CONNECTED TO THE LOAD SIDE (PIN 2) OF CB2200.
  2. PASS THIS WIRE THROUGH THE OPENING OF T2243 CURRENT TRANSFORMER. WHEN INSTALLED, ENSURE THE ARROW ON T2243 IS POINTING TOWARD THE LOAD (AWAY FROM CB2200).
  3. RECONNECT THE WIRE (SIGNAL #2200) TO THE LOAD SIDE (PIN 2) OF CB2200.



- RELAY INSTALLATION NOTES:**
1. USE RELAY AS TEMPLATE TO MARK THE TWO MOUNTING HOLES AS SHOWN.
  2. DRILL TWO 0.18" [4.5] HOLES IN MARKED LOCATIONS.
  3. USE SUPPLIED HARDWARE TO SECURE RELAY TO THE ENCLOSURE.

- RELAY SETTINGS:**
1. SET TIME DELAY DIAL TO THE "MIN" SETTING (DIAL ALL THE WAY COUNTER CLOCKWISE)
  2. SET CURRENT TRIP DIAL TO 10% (5.7A)
  3. IF RELAY DOES NOT TRIP WHEN THE FANS ARE RUNNING WITH THIS INITIAL SETTING, REDUCE THIS SETTING UNTIL THE RELAY DOES TRIP.



# CAR 1 MAIN JUNCTION BOX

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CHANGE #	REVISION	DR	DATE
EC622179	A PRELIMINARY RELEASE	ZSJ	03-20-26
EC622200	B FULL DRAWING RELEASE, SEE FOR CHANGE DETAIL	ZSJ	04-08-26

**DRAWING TITLE/DESCRIPTION:**  
 KIT, INTERCOOLER FAN RUNNING  
 CAR 1 MAIN JUNCTION BOX

**MACHINE TYPE-MODEL:**  
 RGE16A1-27

**E3 PROJECT FILE NAME:**  
 RGE16A1\_CAR1&2\_18

SHEET NUMBER	DRAWN BY:
2	ZSJ
NUMBER OF JUPITER SHEETS	REL. DATE:
-	03-20-2026
TOTAL NUMBER OF SHEETS	SIZE:
2	D
	SCALE:

**HARSCO RAIL**

E3 DRAWING

**5153825**

BILL OF MATERIAL			
ITEM	PART #	QTY	PART DESCRIPTION
1	203437	REF	CONNECTOR, MALE : 4-PIN RECEPTACLE W/18 IN LEADS MALE
2	250202-105	REF	BOLT, METRIC : BOLT, HHCS, M8 X 20MM, CL8.8, ZP
3	250648-8	REF	WASHER, METRIC : WASHER, LOCK, M8, ZP
4	408761	REF	BOLT, METRIC : BOLT, HFCS, M8 X 12MM, CL8.8, ZP
5	408763	REF	BOLT, METRIC : BOLT, HFCS, M8 X 20MM, CL8.8, ZP
6	409323	REF	WELD NUT : M08X1.25 WELD NUT
7	414273	REF	CABLE ASSEMBLY, M23 : CAN MODULE POWER CABLE 10 METERS PIGTAIL
8	414274	REF	CABLE ASSEMBLY, M23 : NETWORK CABLE 0.7METERS M23 MALE/FEMALE
9	3401327	REF	CABLE ASSEMBLY, M12 : 5M M12-M/F 18AWG/5 COND SHLD LSZH
10	3421939	REF	CABLE GRIP : CABLE FROM: 0.31-0.56", 1/2"NPT
11	5061160	REF	ASSEMBLY, ROD : DUST COLLECTOR ROD ASSEMBLY
12	5077262	REF	SENDING UNIT, TEMP : 32-482 F, 0-10 VDC INPUT, HIRSCHMAN CONN
13	5090720	REF	MODULE, ANALOG INPUT : KIT, JUPITER J1+, AI MODULE
14	5096236	REF	COVER : SENSOR COVER, D.C. INLET
15	5096237	REF	COVER : SENSOR COVER, D.C. OUTLET
16	5153870	REF	BRACKET : BRACKET, JUPITER 1+ MODULE
17	0-3250001-0-38	REF	FERRULE : 22-18 AWG INSULATED RED
18	A1563Y19	REF	INSERT, THREADED : M8X1.25 THREADED INSERT
19	F019878	REF	CONDUIT, LOCK NUT : 1/2" CONDUIT LOCK NUT, W/GASKET
20	F041158	REF	NUT, METRIC : NUT, HEX FLG SRT, M8, GR8, ZP

## REFERENCE DRAWINGS


INCLUDE A COPY OF THE FOLLOWING DRAWINGS WITH THIS KIT

DRAWING #	DESCRIPTION
3411290	ELECTRICAL SCHEMATIC, CAR 1 & 2
3411291	ELECTRICAL SCHEMATIC, CAR 3
5153826	KIT, DUST COLLECTOR TEMP SENDERS

NOTE: PLACE PRINTED DEVICE LABELS, CABLE TAGS, AND WIRE NUMBERS IN PLASTIC BAG AND INCLUDE WITH THIS KIT. SEE NOTE 7.

### NOTES:

- ALL WIRES & CONDUCTORS SHALL BE LABELED (WIRE MARKERS) USING A SLEEVE TYPE NUMBERING SYSTEM. WIRES ARE TO BE LABELED ON BOTH ENDS EXCEPT WHERE:
  - OVERALL WIRE LENGTH IS LESS THAN 4"
  - WIRES ARE TERMINATED IN A CONNECTOR (VEAM, CANNON, DIN, ETC.)
- USE SUPPLIED TY-RAPS AS REQUIRED TO SECURE CABLES AND WIRES NEATLY. DO NOT USE TY-RAPS IN WIRE TRAYS OR CONDUIT.
- ROUTE WIRES PER DIAGRAM AND CABLE CHARTS. MAKE ALL CORNERS AS SQUARE AS POSSIBLE.
- ALL CABLES SHALL BE LABELED WITH CABLE MARKERS PLACED IN D8197Y18-SLEEVES PER CABLE CHARTS. SECURE SLEEVE TO BOTH ENDS OF THE CABLE USING F018229-TY-RAP 2" FROM BOX AND 6" FROM THE FREE END. ONCE SECURED CENTER MARKER AND TRIM EXCESS SLEEVE ENDS.
- LABEL STRAIN RELIEF AND M12 CONNECTOR INSIDE OF PANELS PER THE DRAWING USING SELF-ADHESIVE LABELS.
- USE SUPPLIED P-CLAMPS AND SELF TAPPING HARDWARE AS REQUIRED TO SECURE CABLES NEATLY.
- A FILE CONTAINING ALL WIRE, CABLE, & COMPONENT LABELS FOR THIS ASSEMBLY HAS BEEN LOADED AS A DATASET IN TEAMCENTER.

CONFIDENTIAL		CHANGE #	REVISION	DR	DATE	DRAWING TITLE/DESCRIPTION:	SHEET NUMBER	DRAWN BY:		
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								NUMBER OF JUPITER SHEETS		REL. DATE: 04-08-2026
								MACHINE TYPE-MODEL: RGE16A1-27		-
								E3 PROJECT FILE NAME: RGE16A1_CAR1&2_18	TOTAL NUMBER OF SHEETS 7	SCALE:
									E3 DRAWING	
									<b>5153826</b>	

**NEW CABLES - CAR 2 DUST COLLECTOR  
TEMP SENSORS**

SEE SHEET 4

DUST COL INLET TEMP RT FRONT		J15700 3401327		CABLE ASSEMBLY, M12 DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:15:C7	EXISTS	PJ15750:M12	EXISTS

SEE SHEET 5

DUST COL OUTLET TEMP RT FRONT		J15800 3401327		CABLE ASSEMBLY, M12 DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:15:C8	EXISTS	PJ15850:M12	EXISTS

**NEW CABLES - CAR 3 DUST COLLECTOR  
TEMP SENSORS**

SEE SHEET 4

DUST COL INLET TEMP WATER TANK		J09A300 3401327		CABLE ASSEMBLY, M12 DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:09A:C3	EXISTS	PJ09A350:M12	EXISTS

SEE SHEET 5

DUST COL OUTLET TEMP WATER TANK		J09A400 3401327		CABLE ASSEMBLY, M12 DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK	-	CAN:09A:C4	EXISTS	PJ09A450:M12	EXISTS

**NEW CABLES - CAN:09A NETWORK  
& FIELD POWER**

SEE SHEETS 6 & 7

CAN:09A FIELD POWER WATER TANK		J09AFP 414273		CABLE ASSEMBLY, M23 E-ROOM, P2		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BK1	6230	CAN:09A:FPWR	EXISTS	TB25:2	-
2	BK2	6230	CAN:09A:FPWR	EXISTS	TB25:2	-
3	BK3	6230	CAN:09A:FPWR	EXISTS	TB25:2	-
4	BK4	000	CAN:09A:FPWR	EXISTS	TB26:32	-
5	BK5	000	CAN:09A:FPWR	EXISTS	TB26:32	-
6	BK6	000	CAN:09A:FPWR	EXISTS	TB26:32	-
7	GY	**NC**	CAN:09A:FPWR	EXISTS	-	-

NOTE: CAN:09A USES EXISTING SPARE CIRCUIT BREAKER CBSP0 FOR POWER.  
RELABEL CIRCUIT BREAKER CBSP0 TO CB6230.  
RELABEL WIRE FROM CB6230 TO TB25:2 (WAS SP0) TO 6230.

**RECEPTACLE WIRING - CAR 2 DUST COLLECTOR  
TEMP SENSORS**

SEE TEMP SENSOR ASSEMBLY

SEE SHEET 2

DUST COL INLET TEMP J15700		PJ15750 203437		CONNECTOR, MALE DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BN	J15725	J15700:FEM	EXISTS	RJ15742:1	0-3250001-0-38
2	WH	J15742	J15700:FEM	EXISTS	RJ15742:3	0-3250001-0-38
3	BU	J15759	J15700:FEM	EXISTS	RJ15742:2	0-3250001-0-38
4	BK	**NC**	J15700:FEM	EXISTS	-	-

SEE SHEET 2

DUST COL OUTLET TEMP J15800		PJ15850 203437		CONNECTOR, MALE DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BN	J15825	J15800:FEM	EXISTS	RJ15842:1	0-3250001-0-38
2	WH	J15842	J15800:FEM	EXISTS	RJ15842:3	0-3250001-0-38
3	BU	J15859	J15800:FEM	EXISTS	RJ15842:2	0-3250001-0-38
4	BK	**NC**	J15800:FEM	EXISTS	-	-

**RECEPTACLE WIRING - CAR 3 DUST COLLECTOR  
TEMP SENSORS**

SEE TEMP SENSOR ASSEMBLY

SEE SHEET 2

DUST COL INLET TEMP J09A300		PJ09A350 203437		CONNECTOR, MALE DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BN	J09A325	J09A300:FEM	EXISTS	RJ09A342:1	0-3250001-0-38
2	WH	J09A342	J09A300:FEM	EXISTS	RJ09A342:3	0-3250001-0-38
3	BU	J09A359	J09A300:FEM	EXISTS	RJ09A342:2	0-3250001-0-38
4	BK	**NC**	J09A300:FEM	EXISTS	-	-

SEE SHEET 2

DUST COL OUTLET TEMP J09A400		PJ09A450 203437		CONNECTOR, MALE DUST COL		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	BN	J09A425	J09A400:FEM	EXISTS	RJ09A442:1	0-3250001-0-38
2	WH	J09A442	J09A400:FEM	EXISTS	RJ09A442:3	0-3250001-0-38
3	BU	J09A459	J09A400:FEM	EXISTS	RJ09A442:2	0-3250001-0-38
4	BK	**NC**	J09A400:FEM	EXISTS	-	-

SEE SHEET 6

NETWORK 09A TO 10 WATER TANK		NET9A-10 414274		CABLE ASSEMBLY, M23 WATER TANK		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	PU	-	CAN:09A:C-OUT	EXISTS	CAN:10:C-IN	EXISTS

**EXISTING CABLE - REWORK**

SEE SHEET 6

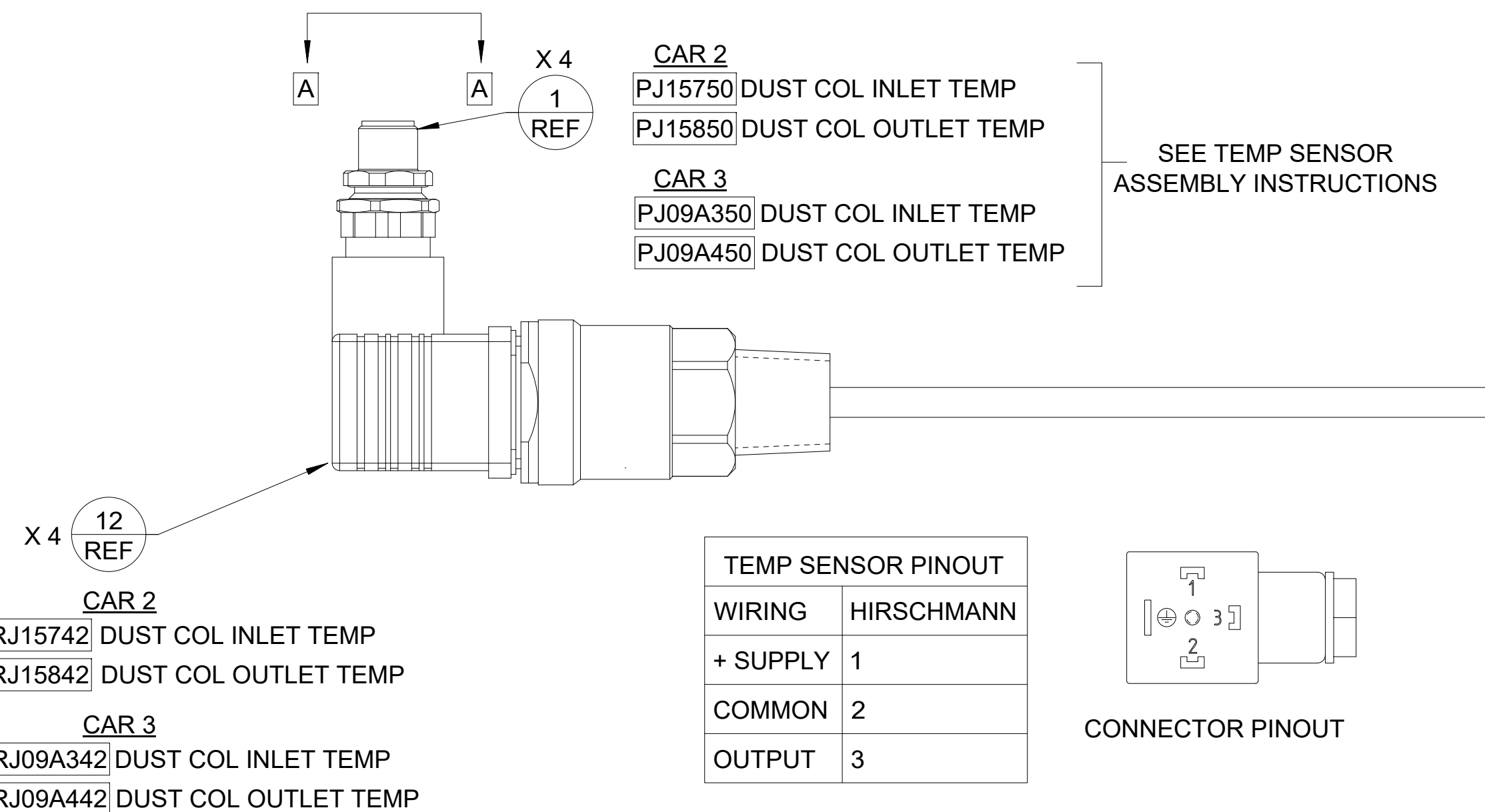
NETWORK 09 TO 09A WATER TANK		NET9-9A 414274		CABLE ASSEMBLY, M23 WATER TANK		
RUN	COLOR	WIRE #	FROM	TERM NO.	TO	TERM NO.
1	PU	-	CAN:09:C-OUT	EXISTS	CAN:09A:C-IN	EXISTS

CABLE NET9-10 REWORK  
1. AT CAN:10 C-IN, DISCONNECT CABLE NET9-10  
2. RECONNECT THIS END OF CABLE NET9-10 TO NEW ANALOG MODULE CAN:09A C-IN  
3. RELABEL THIS CABLE NET9-9A

ALL CABLES:  
SEE NOTES 1-4 & 6

- ASSEMBLY INSTRUCTIONS:
- 2.1. REMOVE HIRSCHMANN CONNECTOR FROM SENSOR.
  - 2.2. PULL WIRES THROUGH CONDUIT OPENING AND INSTALL RECEPTACLE IN CONDUIT OPENING.
  - 2.3. TRIM RECEPTACLE WIRES TO SUITABLE LENGTH AND TERMINATE PER CHARTS. APPLY WIRE TERMINALS USING RATCHET TYPE CRIMPING TOOL. THE BLACK WIRE IS NOT USED.
  - 2.4. CAREFULLY BUNDLE WIRES INTO HIRSCHMANN CONNECTOR REINSTALL.

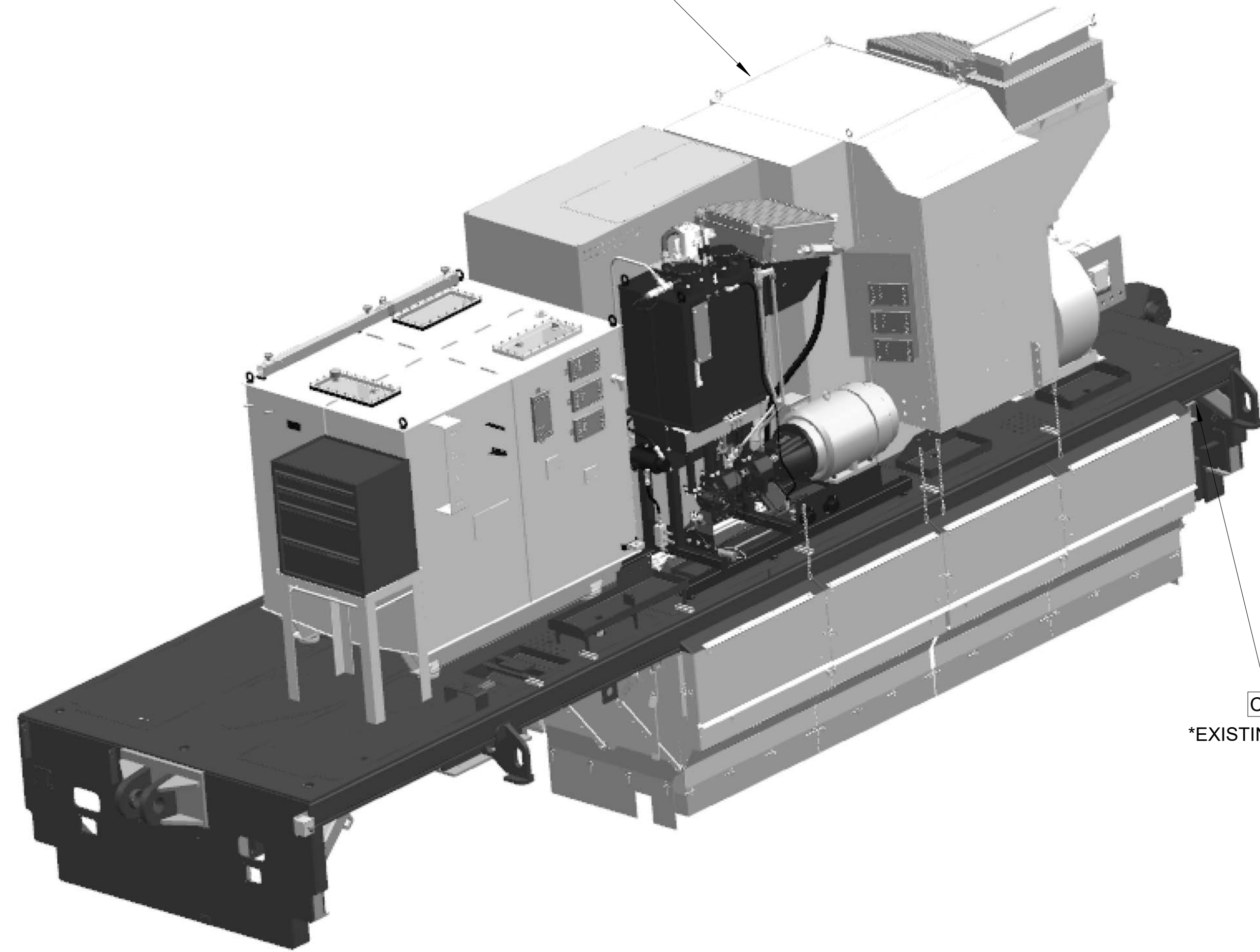
INSTALL M12 RECEPTACLE WITH  
KEY IN-LINE WITH SENSOR BODY.  
SEE NOTE 2.2



**TEMP SENSOR ASSEMBLY**

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	EC622200	A	NEW RELEASE, IS REFERENCE ONLY	ZSJ		04-08-26	2		ZSJ	
							MACHINE TYPE-MODEL: RGE16A1-27		NUMBER OF JUPITER SHEETS	REL. DATE: 04-08-2026
							E3 PROJECT FILE NAME: RGE16A1_CAR1&2_18		TOTAL NUMBER OF SHEETS	SCALE: D

DUST COLLECTOR  
SEE SHEETS 4 & 5 INLET & OUTLET  
TEMPERATURE SENSOR MOUNTING.



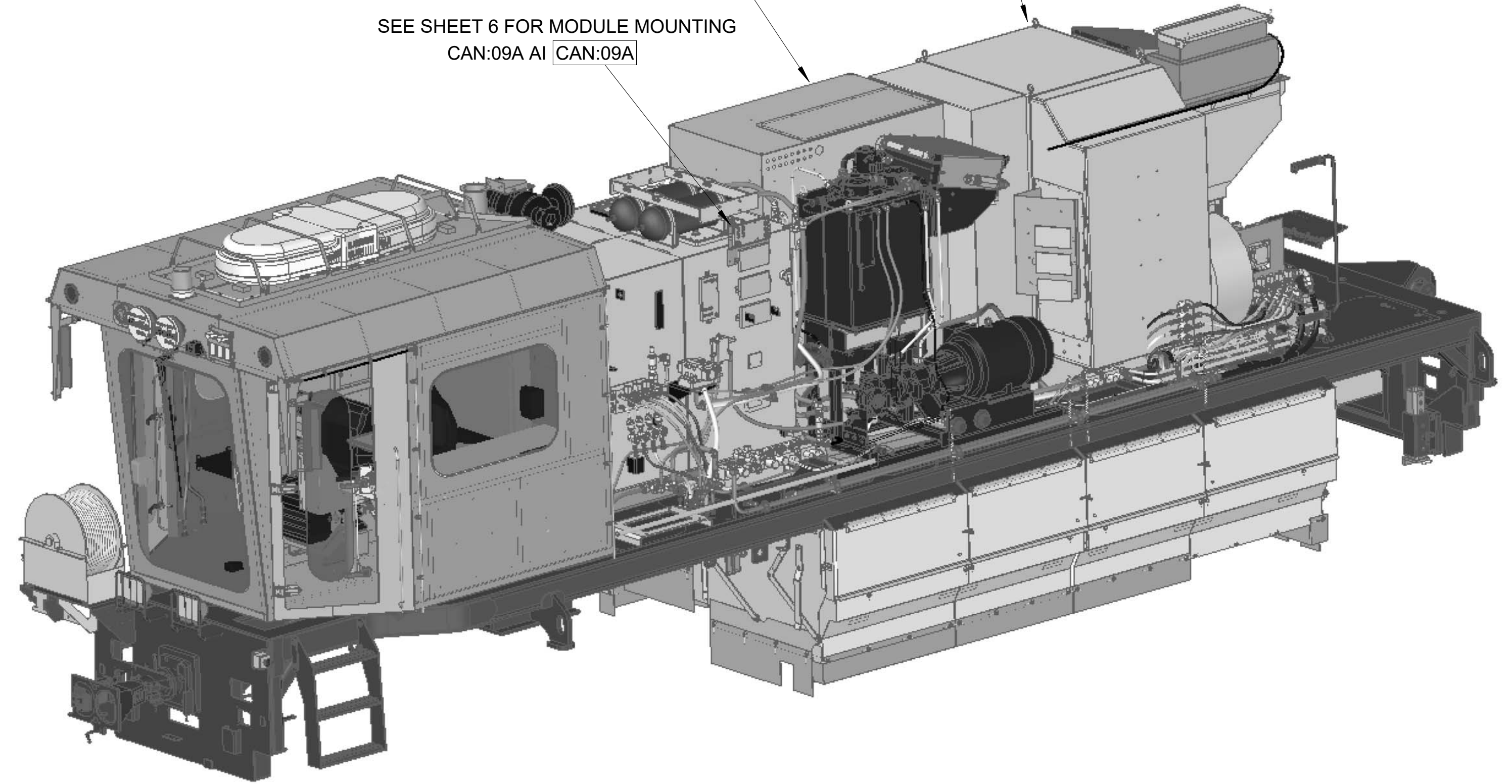
CAN:15  
\*EXISTING MODULE\*

CAR 2

DUST COLLECTOR  
SEE SHEETS 4 & 5 INLET & OUTLET  
TEMPERATURE SENSOR MOUNTING.

E-ROOM  
SEE SHEET 7

\*NEW MODULE\*  
SEE SHEET 6 FOR MODULE MOUNTING  
CAN:09A AI CAN:09A



CAR 3

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EC622200	A NEW RELEASE, IS REFERENCE ONLY	ZSJ	04-08-26

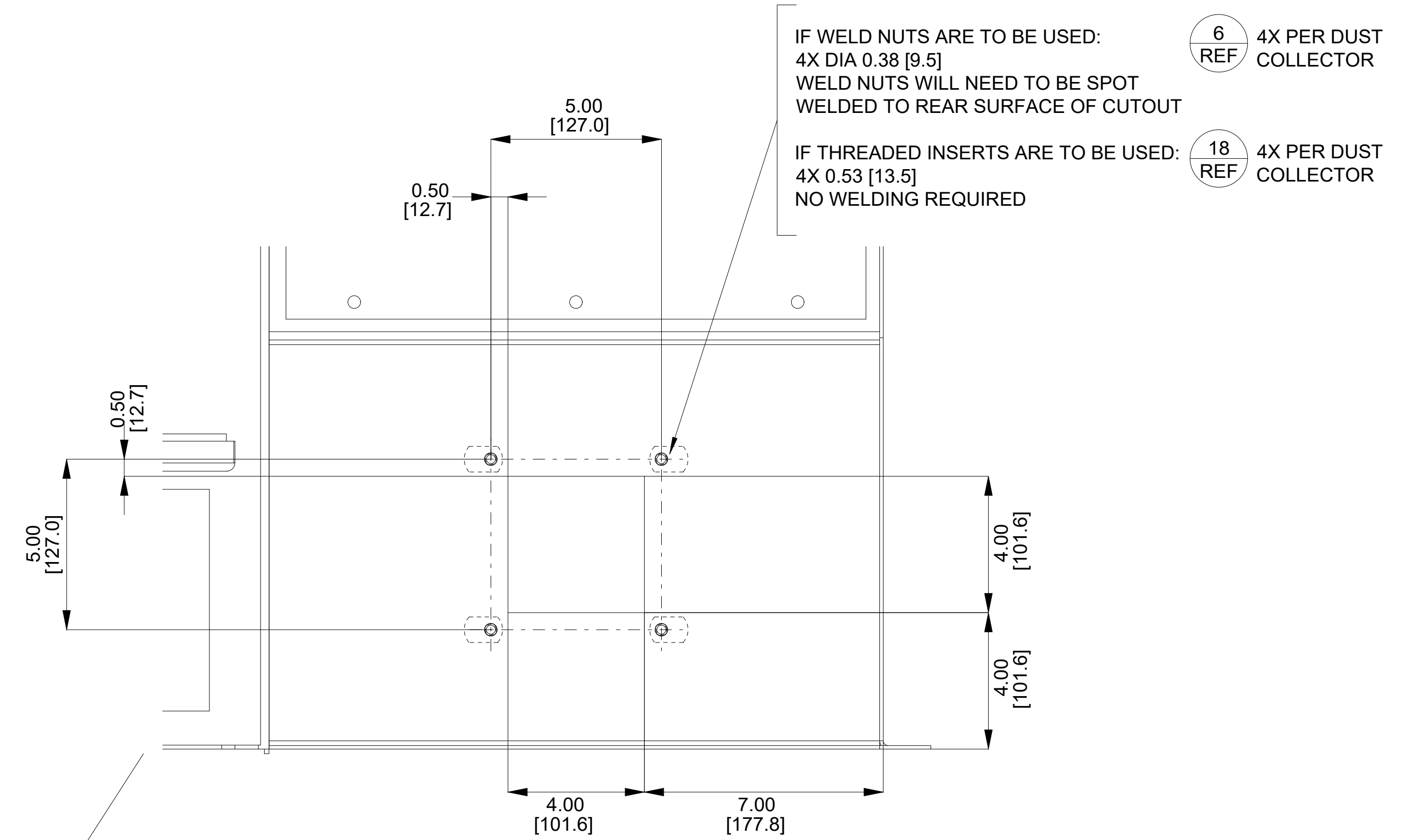
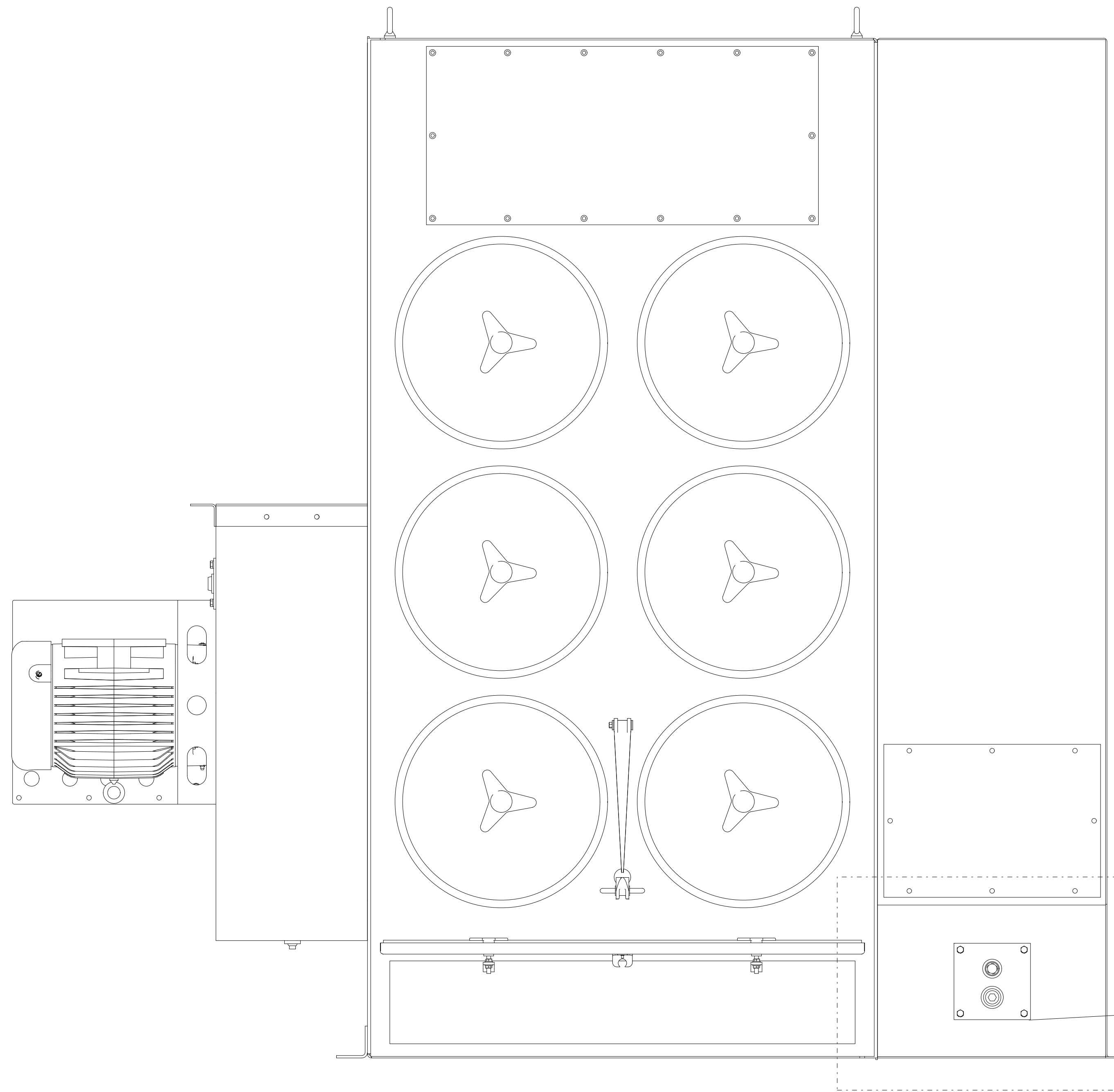
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MACHINE TYPE-MODEL: RGE16A1-27	
E3 PROJECT FILE NAME: RGE16A1_CAR1&2_18	

SHEET NUMBER 3	DRAWN BY: ZSJ
NUMBER OF JUPITER SHEETS -	REL. DATE: 04-08-2026
TOTAL NUMBER OF SHEETS 7	SIZE: D
	SCALE: 

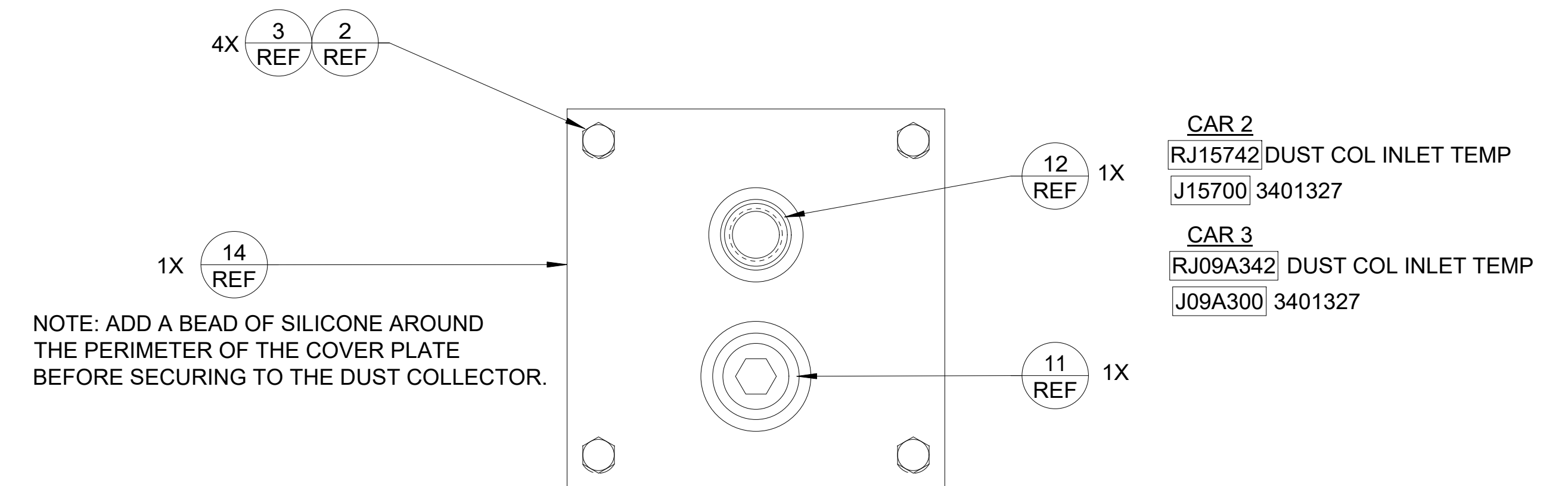
**HARSCO**  
RAIL

E3 DRAWING

**5153826**



**INLET TEMPERATURE SENSOR CUTOUT**



**INLET TEMPERATURE SENSOR DETAIL**

INDICATED QUANTITIES ARE PER DUST COLLECTOR

**DUST COLLECTOR INLET TEMPERATURE SENSOR LOCATION**

STEPS WILL NEED TO BE DONE TO BOTH CAR 2 & CAR 3

- CAR 2  
RJ15742 DUST COL INLET TEMP  
J15700 3401327
- CAR 3  
RJ09A342 DUST COL INLET TEMP  
J09A300 3401327

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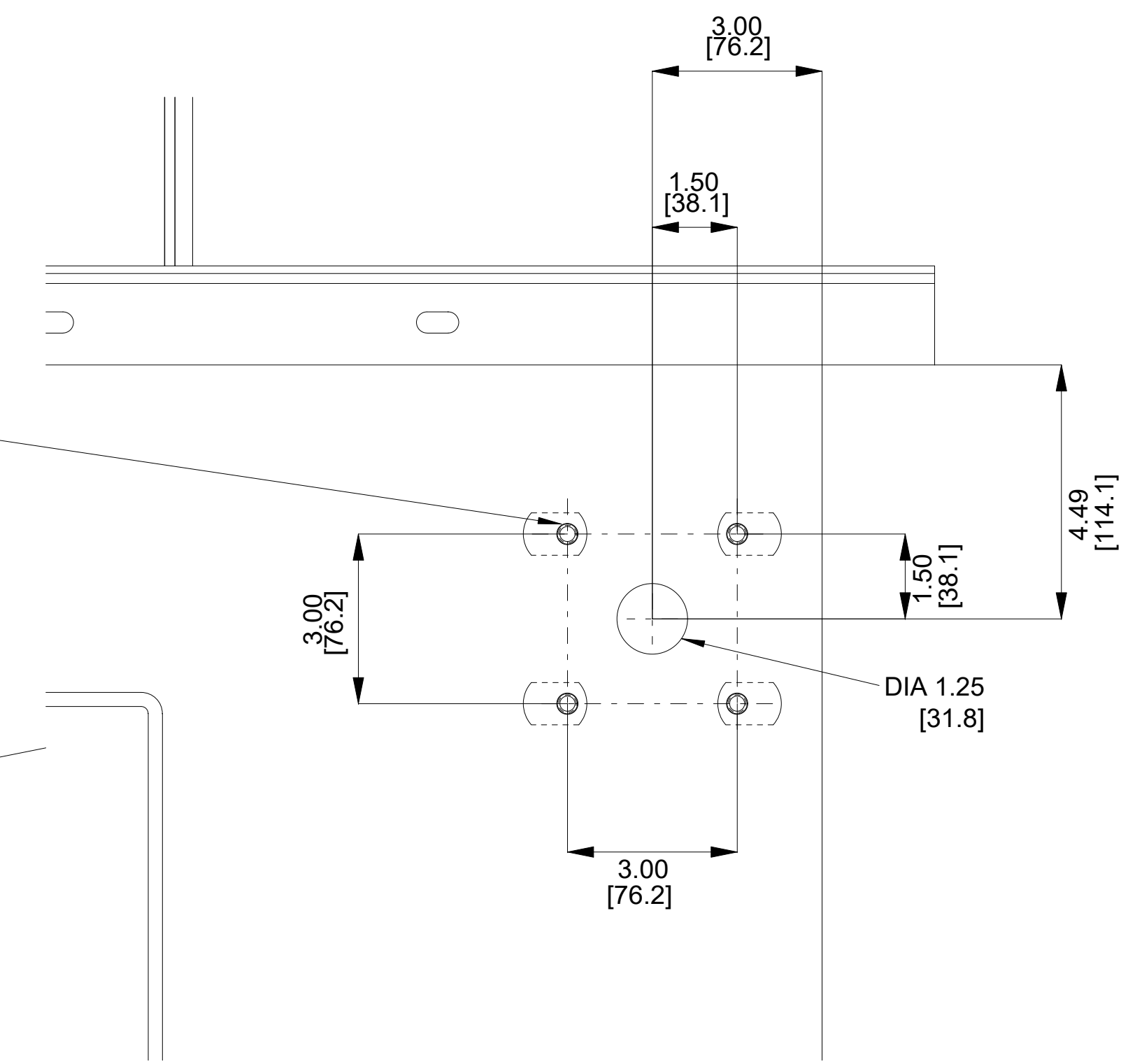
DRAWING TITLE/DESCRIPTION:  
**KIT, DUST COLLECTOR TEMP SENDERS**  
**DUST COLLECTOR INET TEMP**  
 MACHINE TYPE-MODEL:  
**RGE16A1-27**  
 E3 PROJECT FILE NAME:  
**RGE16A1\_CAR1&2\_18**

SHEET NUMBER <b>4</b>	DRAWN BY: <b>ZSJ</b>
NUMBER OF JUPITER SHEETS <b>-</b>	REL. DATE: <b>04-08-2026</b>
TOTAL NUMBER OF SHEETS <b>7</b>	SIZE: <b>D</b>
	SCALE:

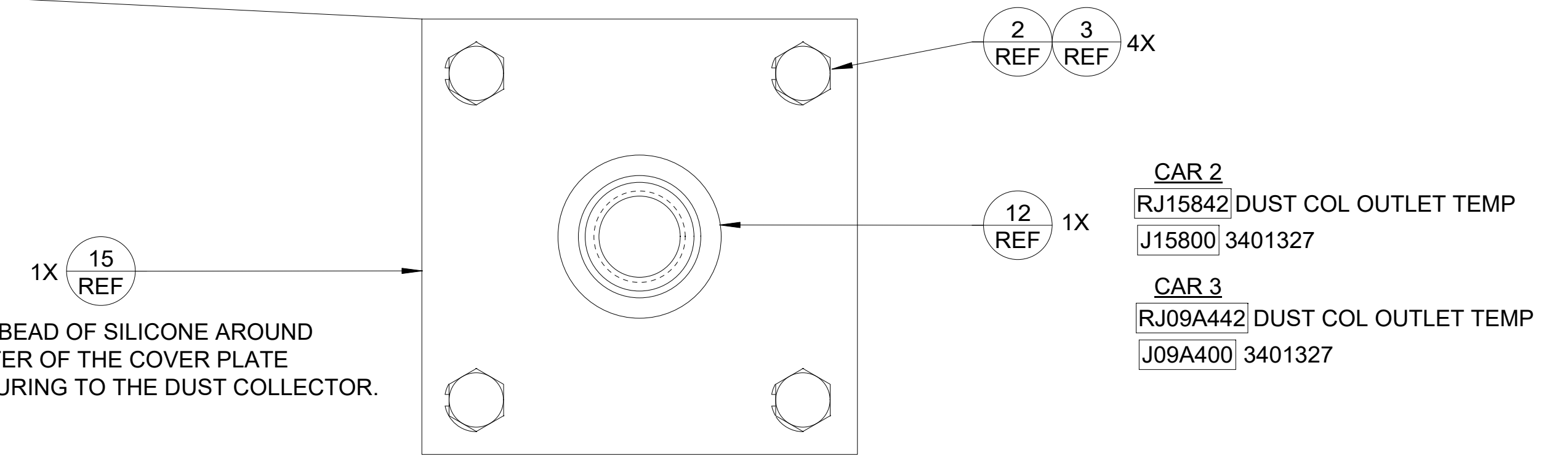
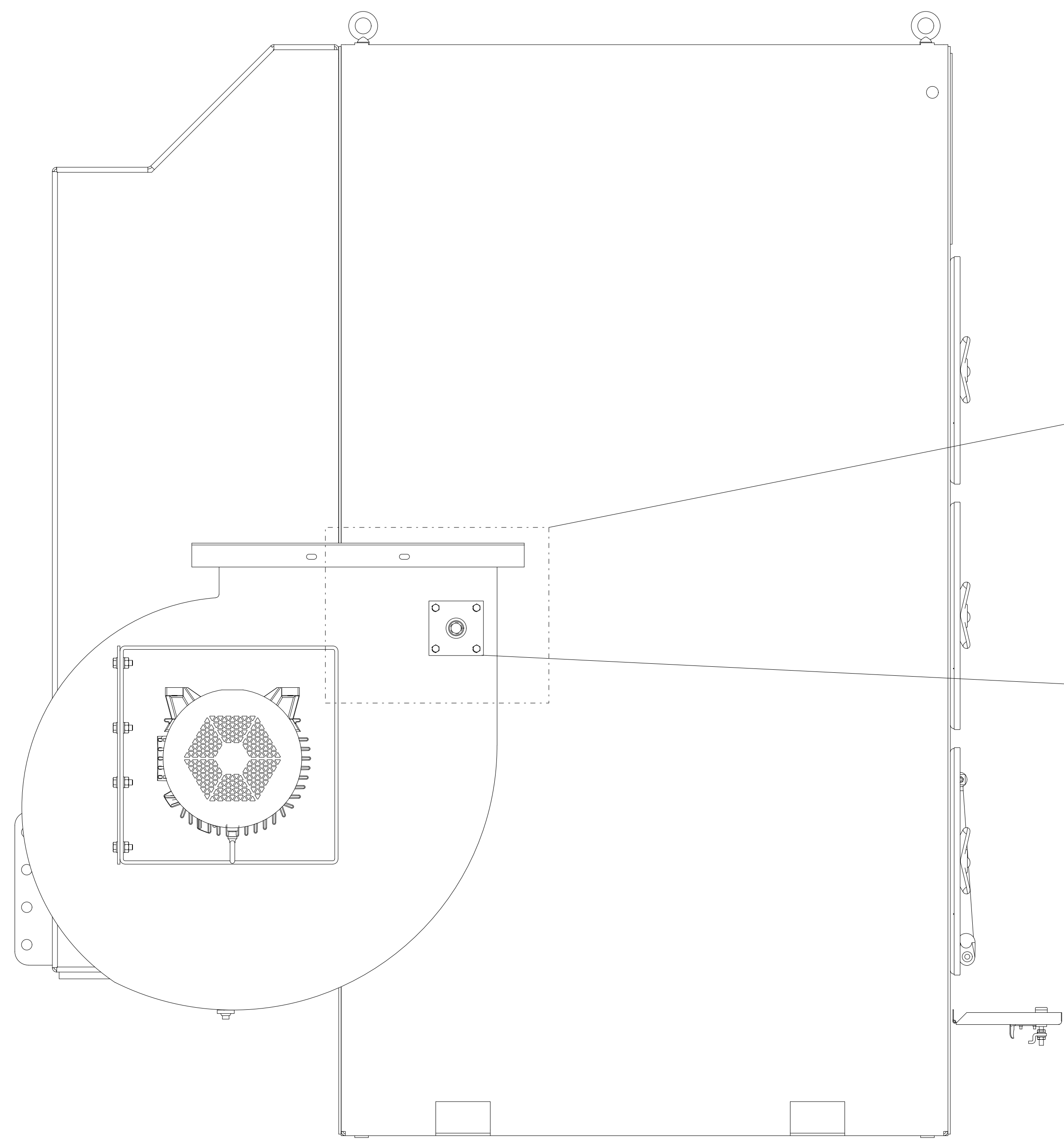
**HARSCO RAIL**  
 E3 DRAWING  
**5153826**

4X PER DUST COLLECTOR 6 REF IF WELD NUTS ARE TO BE USED:  
 4X DIA 0.38 [9.5]  
 WELD NUTS WILL NEED TO BE SPOT WELDED TO REAR SURFACE OF CUTOUT

4X PER DUST COLLECTOR 18 REF IF THREADED INSERTS ARE TO BE USED:  
 4X 0.53 [13.5]  
 NO WELDING REQUIRED



### OUTLET TEMPERATURE SENSOR CUTOUT



NOTE: ADD A BEAD OF SILICONE AROUND THE PERIMETER OF THE COVER PLATE BEFORE SECURING TO THE DUST COLLECTOR.

### OUTLET TEMPERATURE SENSOR DETAIL

INDICATED QUANTITIES ARE PER DUST COLLECTOR

## DUST COLLECTOR OUTLET TEMPERATURE SENSOR LOCATION

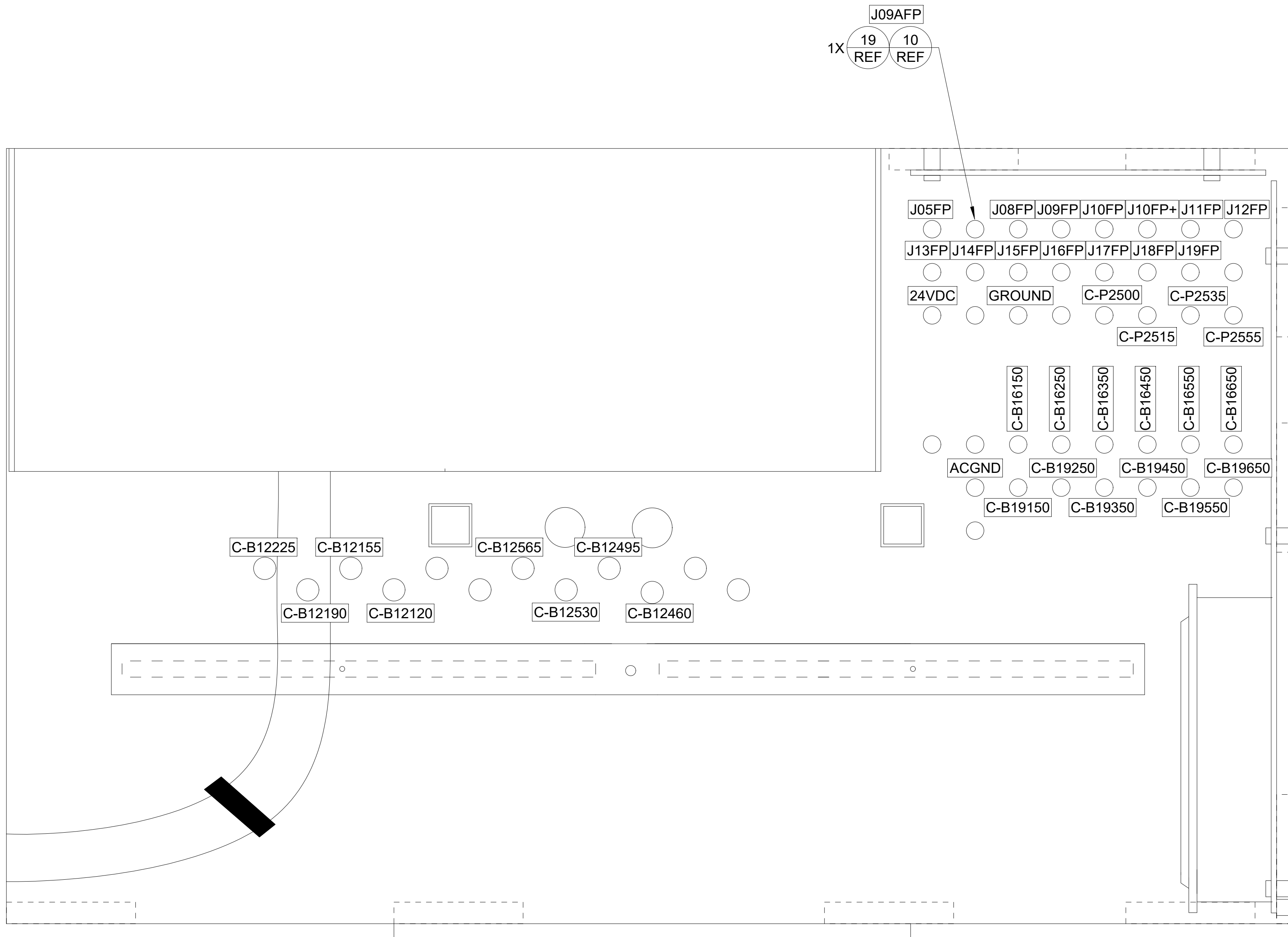
STEPS WILL NEED TO BE DONE TO BOTH CAR 2 & CAR 3

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	EC622200	A	NEW RELEASE, IS REFERENCE ONLY	ZSJ		04-08-26	5		ZSJ	
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							RGE16A1-27		-	04-08-2026
							E3 PROJECT FILE NAME:		TOTAL NUMBER OF SHEETS	SIZE:
					RGE16A1_CAR1&2_18	7	D	E3 DRAWING		
							SCALE:	<b>5153826</b>		

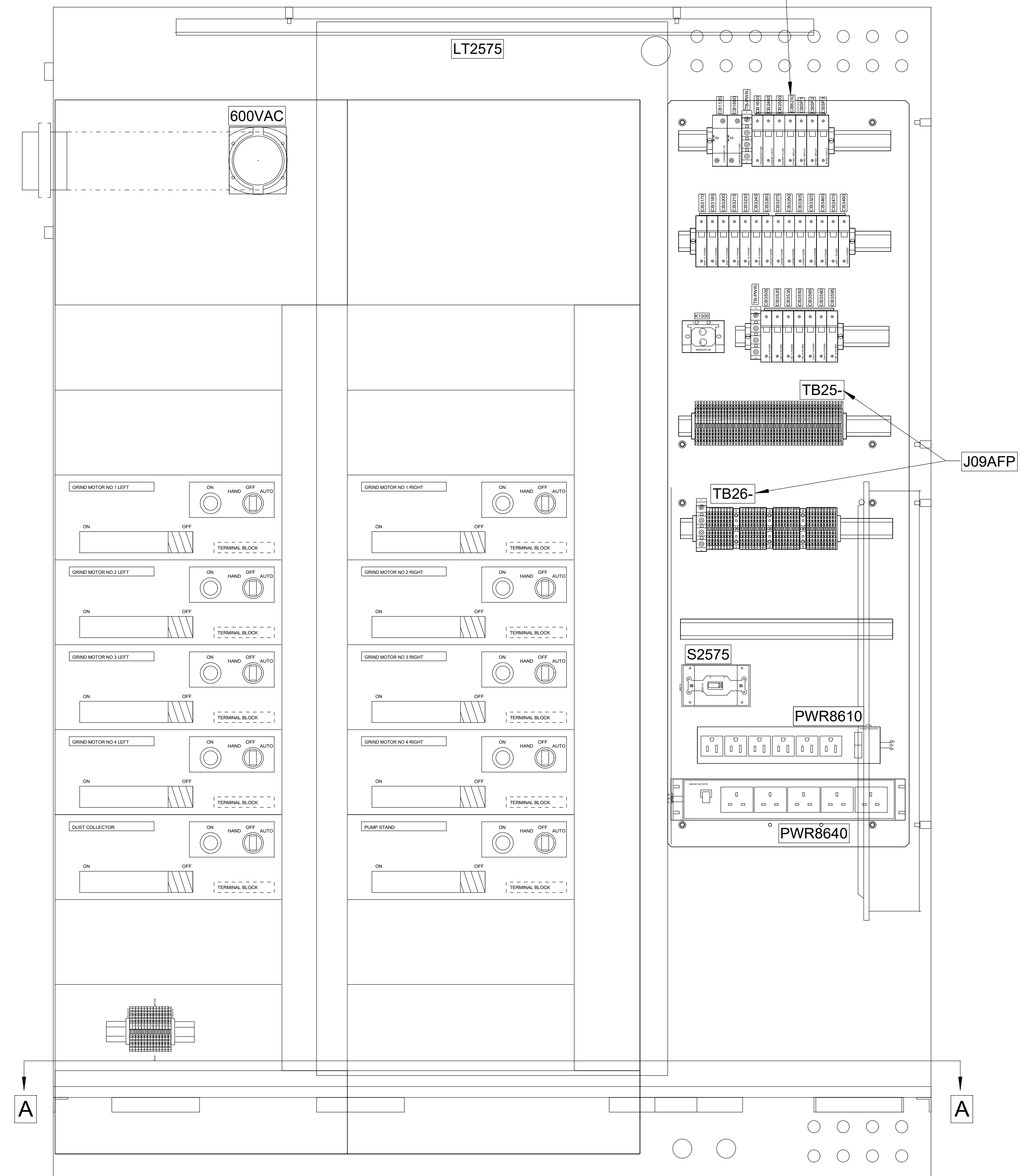


RELABEL CIRCUIT BREAKER TO CB6230

NOTE: REMOVE EXISTING HOLE PLUG,  
& REPLACE WITH CABLE GRIP.  
SEE NOTE 5



**VIEW A-A**



**CAR 3 E-ROOM**

**CAR 3 E-ROOM - CAN:09A FIELD POWER**

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	EC622200	A	NEW RELEASE, IS REFERENCE ONLY	ZSJ		04-08-26	7		ZSJ
							NUMBER OF JUPITER SHEETS		REL. DATE:
							-		04-08-2026
							TOTAL NUMBER OF SHEETS		SIZE:
					7	D	SCALE:		