

**From:** Kolodziejczyk, Jeffrey (J.A.)  
**Sent:** Wednesday, November 16, 2022 5:16 PM  
**To:** Vempati, Abhijyoth (A.R.); Adam, Paul (P.J.)  
**Subject:** FW: [EXTERNAL] RE: Nano 2nd keeper groove failure return  
**Attachments:** As Received.JPG; Combustion Face.jpg; Fracture Surface Head Side.jpg; Fracture Surface Stem To Head Side.jpg; Fracture Surface Stem To Tip Side.jpg; Fracture Surface Tip End.jpg; KG Stem End.jpg; Tip End.jpg

Sorry, this one was buried in my inbox

*Jeff Kolodziejczyk  
Nano Engine Team Ford Motor Co.  
(313) 805-9213 Bldg #1 13D074, jkolodz1@ford.com*

---

**From:** Gould, David <DavidGould@Eaton.com>  
**Sent:** Monday, November 14, 2022 4:16 PM  
**To:** Kolodziejczyk, Jeffrey (J.A.) <jkolodz1@ford.com>; Strand, Tyson <TysonStrand@Eaton.com>  
**Cc:** Calafiore, Salvatore <SalvatoreCalafiore@eaton.com>; Ballario, Stefano <StefanoBallario@Eaton.com>  
**Subject:** RE: [EXTERNAL] RE: Nano 2nd keeper groove failure return

Hi Jeff,



Regards,

**David Gould**

Core Valvetrain Engineer  
Vehicle Group, [Eaton](#)  
19218 B Drive S | Marshall, Michigan 49068  
tel: +1 269 781-0368 mobile: +1 269 986-6454  
[davidgould@eaton.com](mailto:davidgould@eaton.com)



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---

**From:** Kolodziejczyk, Jeffrey (J.A.) <[jkolodz1@ford.com](mailto:jkolodz1@ford.com)>  
**Sent:** Thursday, November 10, 2022 5:21 PM  
**To:** Strand, Tyson <[TysonStrand@Eaton.com](mailto:TysonStrand@Eaton.com)>  
**Cc:** Calafiore, Salvatore <[SalvatoreCalafiore@eaton.com](mailto:SalvatoreCalafiore@eaton.com)>; Gould, David <[DavidGould@Eaton.com](mailto:DavidGould@Eaton.com)>  
**Subject:** [EXTERNAL] RE: Nano 2nd keeper groove failure return

Shipping info

Regards,

*Jeff Kolodziejczyk*  
*Nano Engine Team Ford Motor Co.*  
*(313) 805-9213 Bldg #1 13D074, [jkolodz1@ford.com](mailto:jkolodz1@ford.com)*

---

**From:** Strand, Tyson <[TysonStrand@Eaton.com](mailto:TysonStrand@Eaton.com)>  
**Sent:** Thursday, November 10, 2022 2:43 PM  
**To:** Kolodziejczyk, Jeffrey (J.A.) <[jkolodz1@ford.com](mailto:jkolodz1@ford.com)>  
**Cc:** Calafiore, Salvatore <[SalvatoreCalafiore@eaton.com](mailto:SalvatoreCalafiore@eaton.com)>; Gould, David <[DavidGould@Eaton.com](mailto:DavidGould@Eaton.com)>  
**Subject:** Nano 2nd keeper groove failure return

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Jeff,

As discussed, proceed with shipping part(s) to my attention in Marshall. David Gould (cc'd) will coordinate with Salvatore to get them into the lab with highest urgency.

Thanks,

Tyson

















**From:** Williams, Brian (B.E.)  
**Sent:** Tuesday, December 13, 2022 5:27 PM  
**To:** Kolodziejczyk, Jeffrey (J.A.)  
**Cc:** Hewlett, Matt (M.S.); Birr, Jodi (J.); Comer, Christiann (C.D.); Vempati, Abhijyoth (A.R.); Adam, Paul (P.J.)  
**Subject:** FW: 2022 MY 2.7L-4V GTDI U725 BRONCO BROKEN VALVE ENGINE EXCHANGE (VIN: 1FMEE5DP9N [REDACTED], 13 MILES).  
**Attachments:** 2022eng273\_Ford Nano\_Intake Valve Field Failure.pdf

Thank you for the feedback and follow up.

**Brian Williams**  
**IP TSE Product Development**  
**e-mail address: [bwilli16@ford.com](mailto:bwilli16@ford.com)**  
**Telephone Number: 586.651.3495**

---

**From:** Kolodziejczyk, Jeffrey (J.A.) <[jkolodz1@ford.com](mailto:jkolodz1@ford.com)>  
**Sent:** Tuesday, December 13, 2022 3:00 PM  
**To:** Williams, Brian (B.E.) <[bwilli16@ford.com](mailto:bwilli16@ford.com)>  
**Cc:** Hewlett, Matt (M.S.) <[mhewlet1@ford.com](mailto:mhewlet1@ford.com)>; Birr, Jodi (J.) <[JBIRR@ford.com](mailto:JBIRR@ford.com)>; Comer, Christiann (C.D.) <[ccomer3@ford.com](mailto:ccomer3@ford.com)>; Vempati, Abhijyoth (A.R.) <[avempati@ford.com](mailto:avempati@ford.com)>; Adam, Paul (P.J.) <[padam6@ford.com](mailto:padam6@ford.com)>  
**Subject:** RE: 2022 MY 2.7L-4V GTDI U725 BRONCO BROKEN VALVE ENGINE EXCHANGE (VIN: 1FMEE5DP9N [REDACTED], 13 MILES).

Attached report from Eaton.

Regards,  
Jeff Kolodziejczyk  
Nano Engine Team Ford Motor Co.  
(313) 805-9213 Bldg #1 13D074, [jkolodz1@ford.com](mailto:jkolodz1@ford.com)

---

**From:** Kolodziejczyk, Jeffrey (J.A.)  
**Sent:** Tuesday, December 13, 2022 2:58 PM  
**To:** Williams, Brian (B.E.) <[bwilli16@ford.com](mailto:bwilli16@ford.com)>  
**Cc:** Hewlett, Matt (M.S.) <[mhewlet1@ford.com](mailto:mhewlet1@ford.com)>; Birr, Jodi (J.) <[JBIRR@ford.com](mailto:JBIRR@ford.com)>; Comer, Christiann (C.D.) <[ccomer3@ford.com](mailto:ccomer3@ford.com)>; Vempati, Abhijyoth (A.R.) <[avempati@ford.com](mailto:avempati@ford.com)>; Adam, Paul (P.J.) <[padam6@ford.com](mailto:padam6@ford.com)>  
**Subject:** RE: 2022 MY 2.7L-4V GTDI U725 BRONCO BROKEN VALVE ENGINE EXCHANGE (VIN: 1FMEE5DP9 [REDACTED] 2, 13 MILES).

Brian,



Regards,  
Jeff Kolodziejczyk  
Nano Engine Team Ford Motor Co.  
(313) 805-9213 Bldg #1 13D074, [jkolodz1@ford.com](mailto:jkolodz1@ford.com)

**From:** Williams, Brian (B.E.) <bwilli16@ford.com>  
**Sent:** Tuesday, December 13, 2022 11:04 AM  
**To:** Kolodziejczyk, Jeffrey (J.A.) <jkolodz1@ford.com>  
**Cc:** Hewlett, Matt (M.S.) <mhewlet1@ford.com>; Birr, Jodi (J.) <BIRR@ford.com>; Comer, Christiann (C.D.) <ccomer3@ford.com>  
**Subject:** 2022 MY 2.7L-4V GTDI U725 BRONCO BROKEN VALVE ENGINE EXCHANGE (VIN: 1FMEE5DP9NLB53912, 13 MILES).  
**Importance:** High

**Lima Engine Plant (LEP)** shipped the **broken intake valve** from this **2022 MY 2.7L-4V GTDI U725N Bronco engine exchange (VIN: 1FMEE5DP [REDACTED], ESN: EF06A 22229130978 MB3E 6007 AB, 13 miles)** to **Eaton Corporation for failure analysis**

**This 2022 MY 2.7L-4V GTDI U725N Bronco engine failed at 13 miles.**

Can you follow up with Eaton Corporation to see if you are in agreement with their failure analysis for 2022 MY 2.7L-4V GTDI U725N Bronco engine exchange?

Vehicle Information		
Model Year:	2022	Docume
Market Derived:	F - FORD	Repair D
Body/Cab Type:	T/WL - 5 DOOR	Distance
Version/Series:	T/HF - WILDTRAK #7	TIS:
Drive Type:	T/F-4 WHL L/H FULL TIME DRIVE	FCC Auth
Vehicle Line:	T/G1-U725N BRONCO [21-23]	GSAR Lo
WERS Engine Code:	T/WQ-2.7L DOHC 4V DI GT V6 GAS/FFV	Transact
WERS Transmission Code:	T/ET-10 SPD AUTO TRANSMISSION-10R60	
Warranty Start Date:	21-OCT-2022	
Production Date:	22-AUG-2022	
VIN:	1FMEE5DP9 [REDACTED] 2	
Dealer Information		Custom
		Deductib
Dealer Name:	FLOOD FORD OF EAST GREENWICH	Dealer P
Dealer Code:	04005 - *	Labor Co
Address:	2545 SOUTH COUNTY TRAIL	VAT:
City:	EAST GREENWICH	Misc. Exp
State:	RI Zip Code: 028181531	Part Mar
Country:	USA Region Code: NA	Material
Phone:	(401) 8844000	Total Cos

**CONCERN INFORMATION:**

Cust. Concern Code:	D50 - OTHER ENGINE TROUBLES-SPECIFIC TO ENGINE FUNCTION
Condition Code:	42 - DOES NOT OPERATE PROPERLY
Technician Comment:	CONFIRMED A KNOCKING NOISE IN SERVICE DRIVE. ENGINE STALLED AND THEN WOULD NO LONGER TURN OVER. KNOCK WAS WAS ISOLATED TO UNDER LEFT VALVE COVER BEFORE ENGINE STALLED. REMOVED LEFT VALVE COVER AND FOUND CYL 4 INTAKE VALVE SPRING RETAINERS WERE MISSING AND VALVE HAD DROPPED INTO CYLINDER 4 CAUSING ENGINE TO LOCK UP. REMOVED ENGINE AND REPLACED WITH NEW LONG BLOCK ASSEMBLY. ROAD TESTED VEHICLE AND RECHECKED. NO FURTHER ABNORMAL ENGINE NOISES PRESENT AT THIS TIME. ML3Z9350C REPLACED PER PARTS CATALOG, WHEN REPLACING MB3Z6006L. ATTACHMENT LABELED OTHERS CONTAINS PARTS CATALOG SCREEN PRINT AS WELL AS DOW SCREENPRINT SHOWING PART#SUPERSESSION REQUIRING SPN ML3Z9350C.
Customer Comment:	KNOCKING NOISE FROM ENGINE. ADVISE

**LABOR INFORMATION:** Note: All costs are in US dollars

Labor Op Code	Labor Op Description
6007A	ENGINE ASSEMBLY REMOVE AND INSTALL
6007A34	FQR(FORD QUALITY RENEWAL) REPLACE
6007AXQ	ENGINE ASSEMBLY - REMOVE AND INSTALL
6007E	ENGINE EXCHANGE - DIAGNOSIS
6007E1	INSPECT AND DETERMINE ENGINE CONDITION - CHECK
MTAD	

**PART INFORMATION:** Note: All costs are in US dollars

Causal Flag	Reported Part Number				Engineering Part Number			
	PREF	BASE	SUFF	Description	PREF	BASE	SUFF	Description
N	ML3Z	9350	C	PUMP ASY-FUEL	ML3Z	9350	C	PUMP ASY-F
Y	MB3Z	6006	L	ENGINE ASSY/BARE	MB3Z	6006	L	ENGINE ASSY
N	FT4Z	6N652	D	GASKET TURBO OIL TUB	FT4Z	6N652	D	GASKET TUR
N	FT4Z	6N652	G	GASKET TURBO OIL TUB	FT4Z	6N652	G	GASKET TUR
N	FT4Z	6N652	B	GASKET TURBO OIL TUB	FT4Z	6N652	B	GASKET TUR
N	ML3Z	6N652	F	GASKET TURBO OIL TUB	ML3Z	6N652	F	GASKET TUR
N	JT4Z	6N652	A	GASKET TURBO OIL TUB	JT4Z	6N652	A	GASKET TUR
N	ML3Z	6N652	G	GASKET TURBO OIL TUB	ML3Z	6N652	G	GASKET TUR
N	ML3Z	9J323	E	TUBE-F/PMP TO F/RAIL	ML3Z	9J323	E	TUBE-F/PMP
N	ML3Z	9J323	D	TUBE-F/PMP TO F/RAIL	ML3Z	9J323	D	TUBE-F/PMP
N	*	W716117	S437		*	W716117	S437	
N	*	W716383	S437		*	W716383	S437	
N	JT4Z	6C683	A	FLTER-ENG OIL	JT4Z	6C683	A	FLTER-ENG C
N	*	W720953	S439		*	W720953	S439	
N	*	W500720	S439		*	W500720	S439	
N	*	W719557	S439		*	W719557	S439	
N	*	W721449	S439		*	W721449	S439	
N	MB3Z	8620	B	BELT-W/PUMP FAN&GENE	MB3Z	8620	B	BELT-W/PUM
N	FL	2062	A	CYL ASY FRT BRAKE	KU2Z	6731	A	ELEMENT AS
N	MB3Z	6758	C	TUBE ASY-CRANKCASE V	MB3Z	6758	C	TUBE ASY-CF
N	*	W714265	S442		*	W714265	S442	
N	*	W716530	S440		*	W716530	S440	
N	*	W520214	S440		*	W520214	S440	
N	*	W715618	S437		*	W715618	S437	
N	*	W709771	S440		*	W709771	S440	
N	7T4Z	6379	AA	BOLT-FLYWHEEL TO CRA	7T4Z	6379	AA	BOLT-FLYWH
N	JT4Z	9448	D	GSKT EXH MNFLD TO CY	JT4Z	9448	D	GSKT EXH M
N	VC	13DL	G		VC	13DL	G	
N	XO	5W30	Q1SP	OIL - ENGINE	XO	5W30	Q1SP	OIL - ENGINE

**MALFUNCTION INFORMATION:**

**Brian Williams**  
**IPTSE Product Development**  
**e-mail address: [bwilli16@ford.com](mailto:bwilli16@ford.com)**  
**Telephone Number: 586.651.3495**

# Ford Nano

Intake Valve Field Failure

S. Calafiore  
November 21<sup>st</sup>, 2022

ref. 22318\_08756

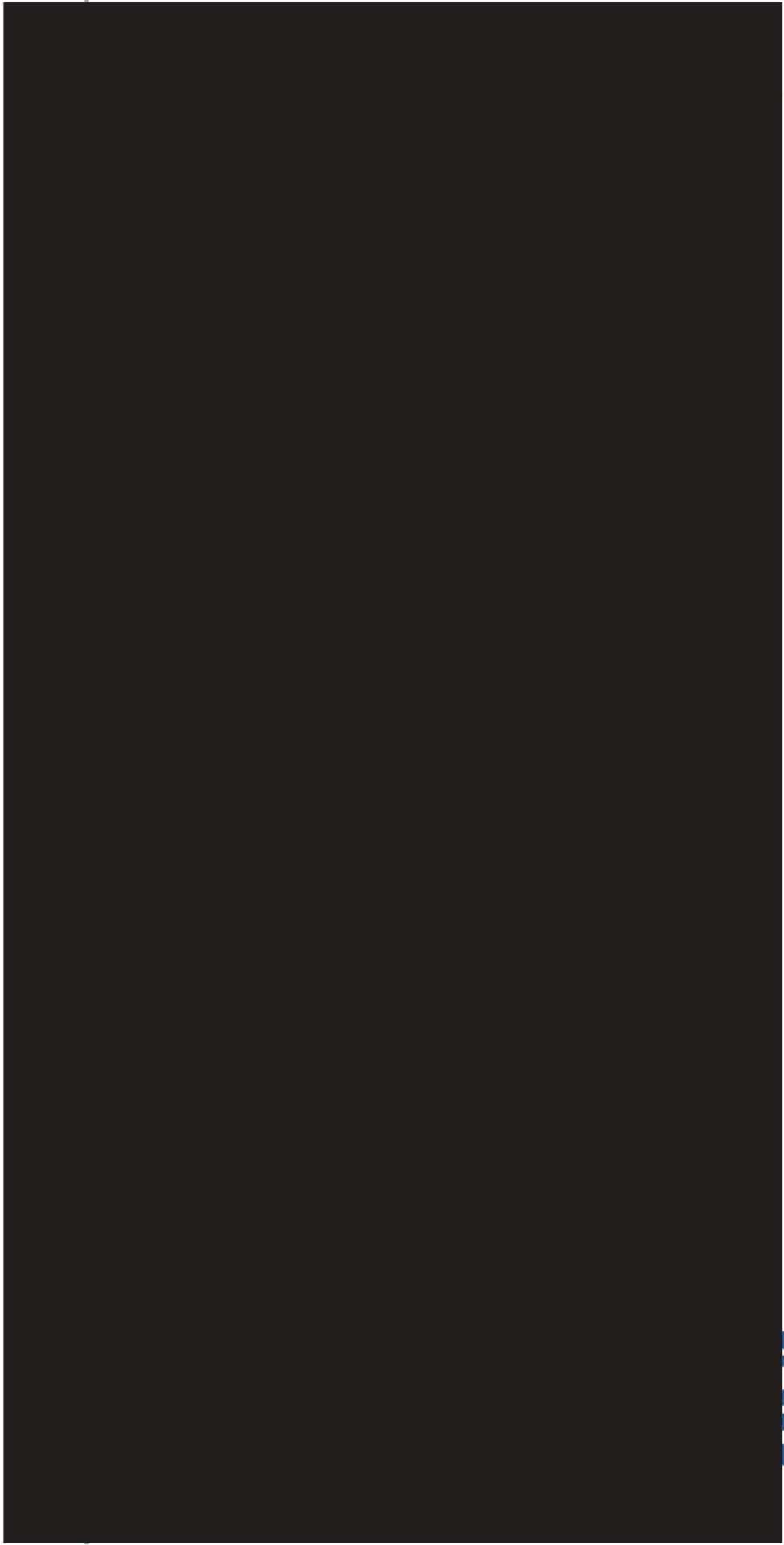
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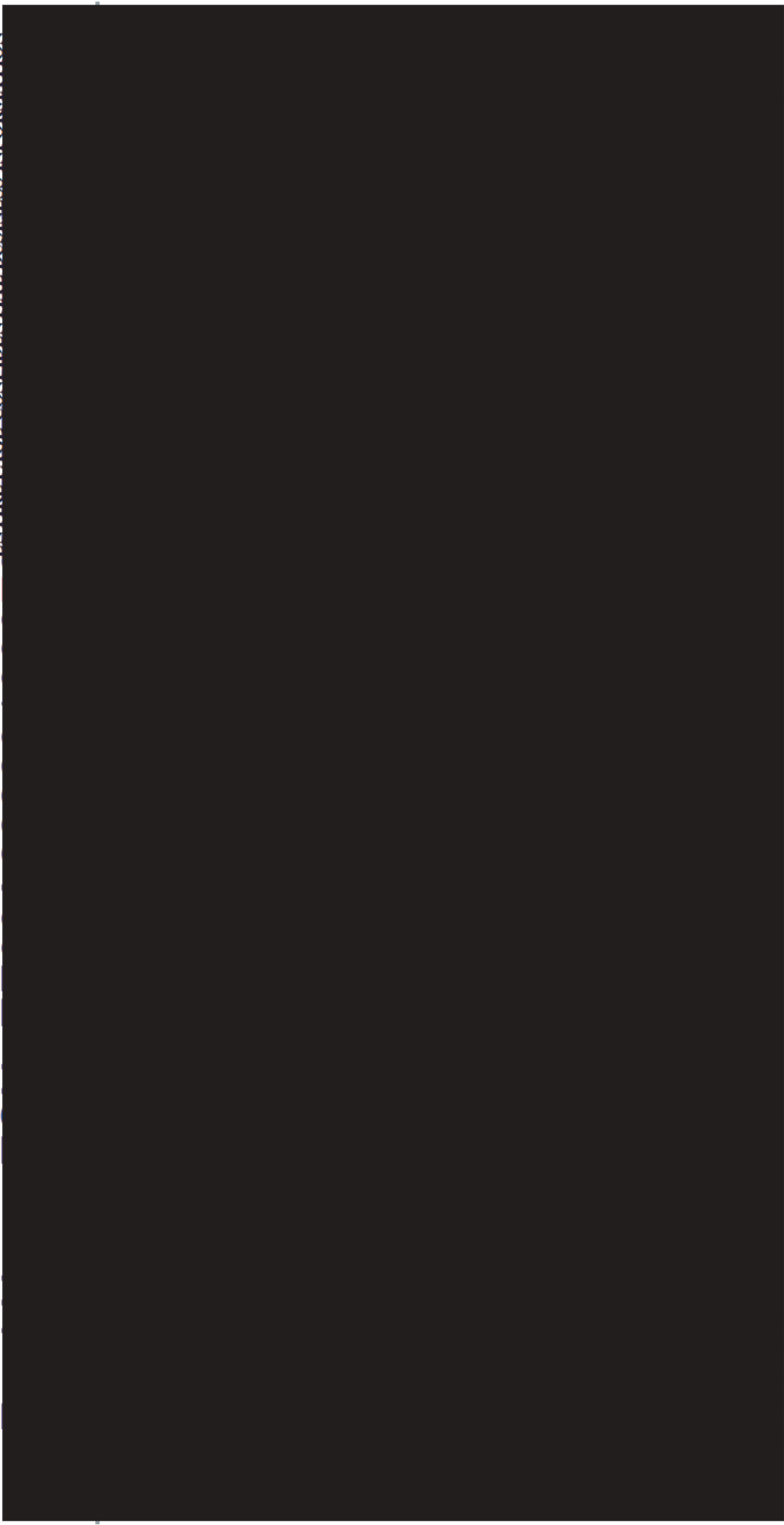


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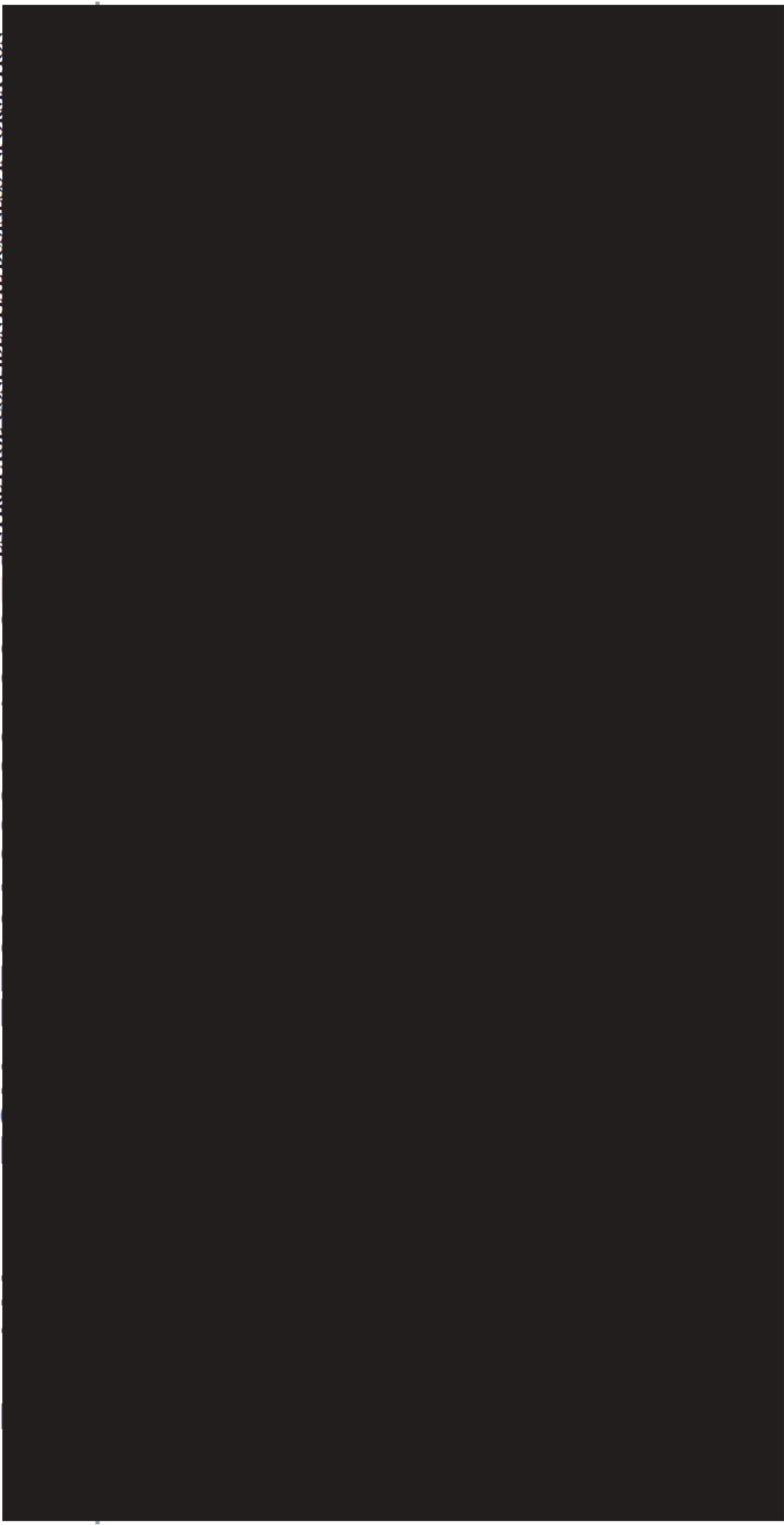


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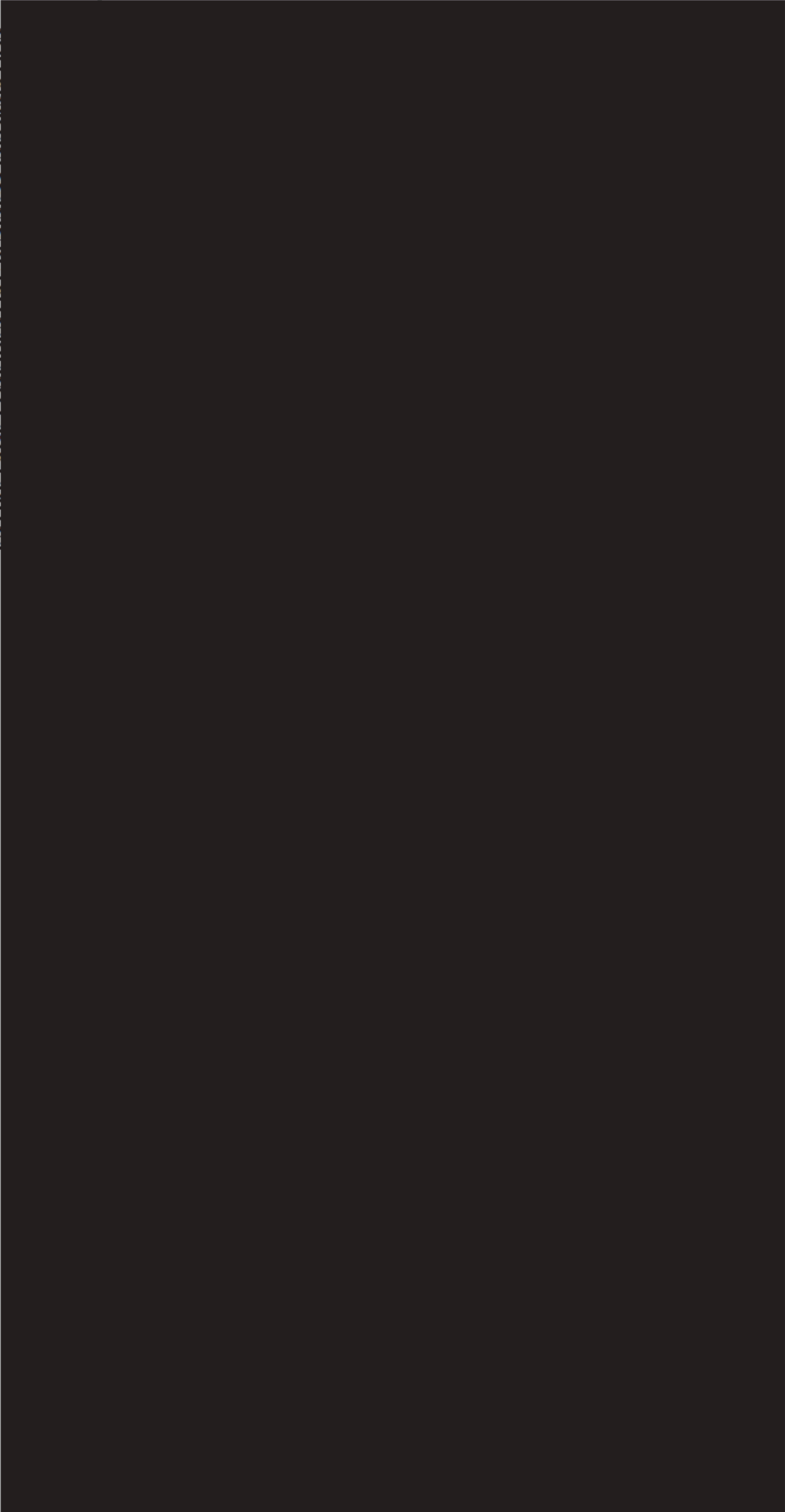
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**EATON**

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**From:** Hewlett, Matt (M.S.)  
**Sent:** Monday, November 21, 2022 9:52 AM  
**To:** Birr, Jodi (J.); Hale, Bryan (B.); Lyons, Marcus (M.I.); Williams, Brian (B.E.); Comer, Christiann (C.D.)  
**Cc:** Verhoff, Darrin (D.J.); Thomas, Jeffery (J.); Fischer, Ron (R.); Vempati, Abhijoth (A.R.); Adam, Paul (P.J.); Kolodziejczyk, Jeffrey (J.A.)  
**Subject:** FW: Ford Nano intake valve failure - engineering report  
**Attachments:** 2022eng273\_Ford Nano\_Intake Valve Field Failure.pdf

Thanks,  
**Matt Hewlett**  
LEP Resident Engineer  
Desk: 419-226-7349  
Cell: 313-805-1069

---

**From:** Calafiore, Salvatore <SalvatoreCalafiore@eaton.com>  
**Sent:** Monday, November 21, 2022 9:44 AM  
**To:** Vempati, Abhijoth (A.R.) <avempati@ford.com>; Hewlett, Matt (M.S.) <mhewlet1@ford.com>  
**Cc:** Strand, Tyson <TysonStrand@Eaton.com>  
**Subject:** Ford Nano intake valve failure - engineering report

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Hello Abhi, Matt,  
Please find in attachment the report related to the priority n°2, discussed during the CPMT.  
Any question I am at your disposal.

Sincerely,

**Salvatore Calafiore**

Senior Engineer  
Valvetrain Core Engineering Vehicle Group, Eaton  
Corso Ferrucci 112 | Torino, Italy 10138  
Phone: +39 011 2208451  
Mobile: +39 342 9963780  
[SalvatoreCalafiore@Eaton.com](mailto:SalvatoreCalafiore@Eaton.com)



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# Ford Nano

Intake Valve Field Failure

S. Calafiore  
November 21<sup>st</sup>, 2022

ref. 22318\_08756

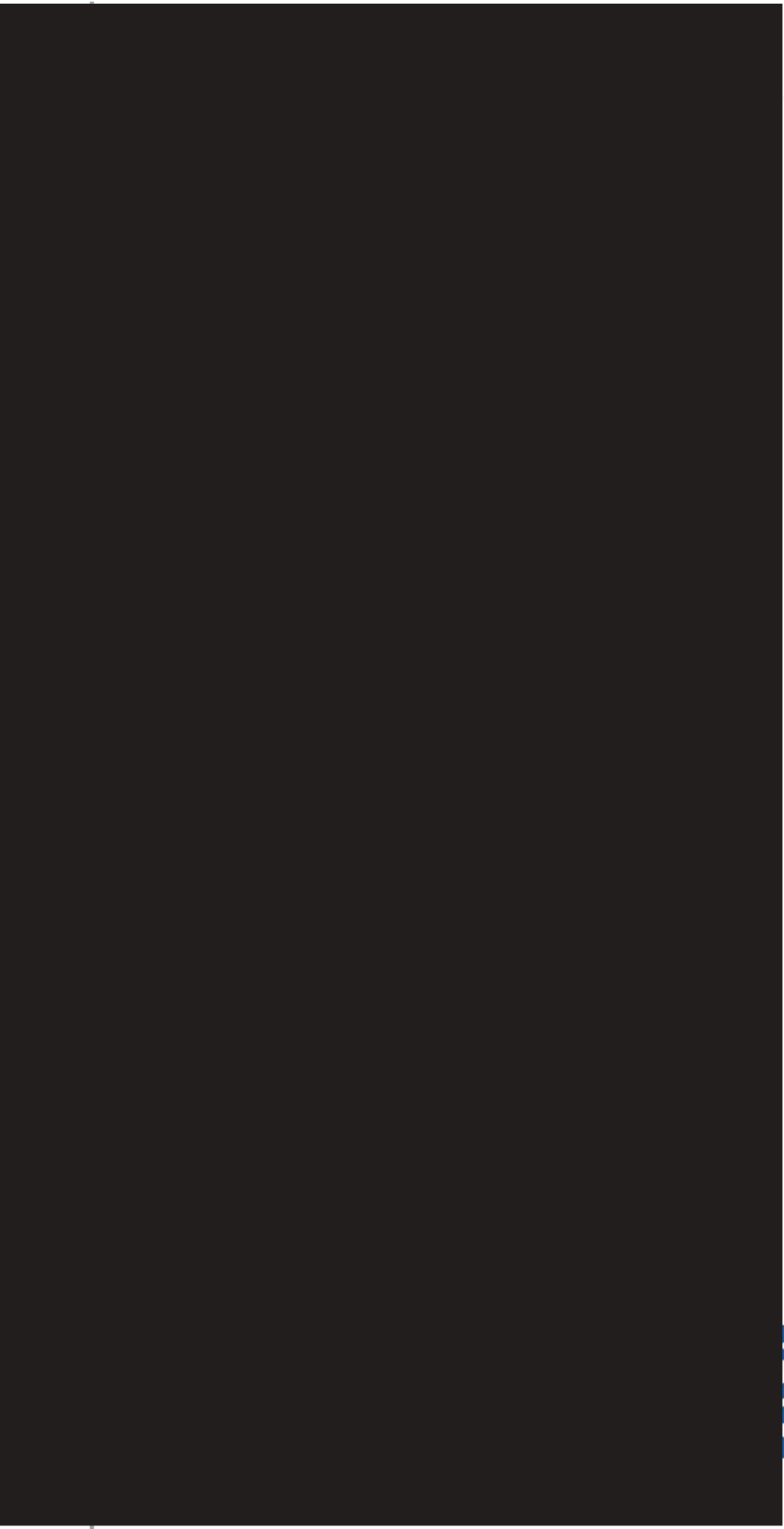
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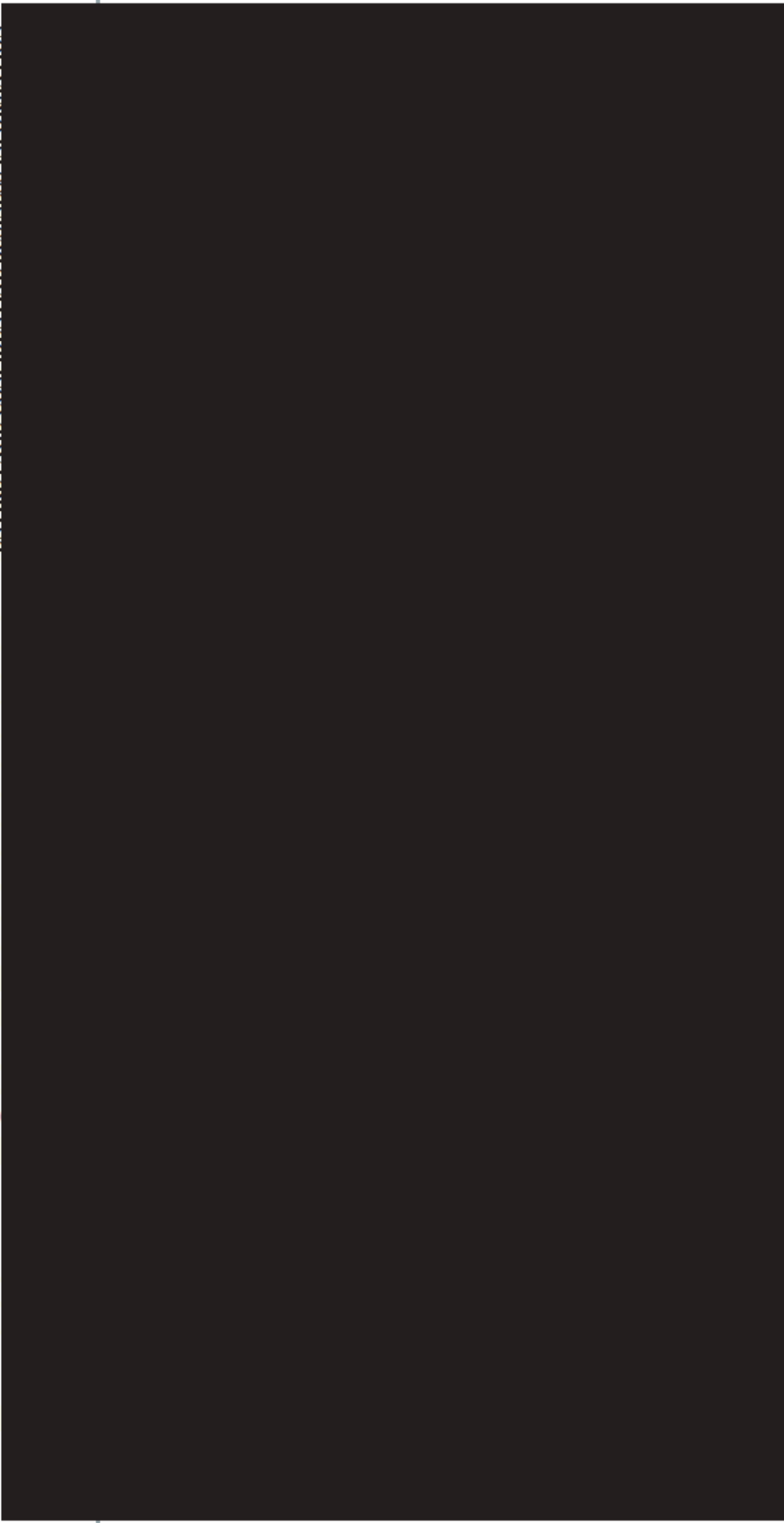
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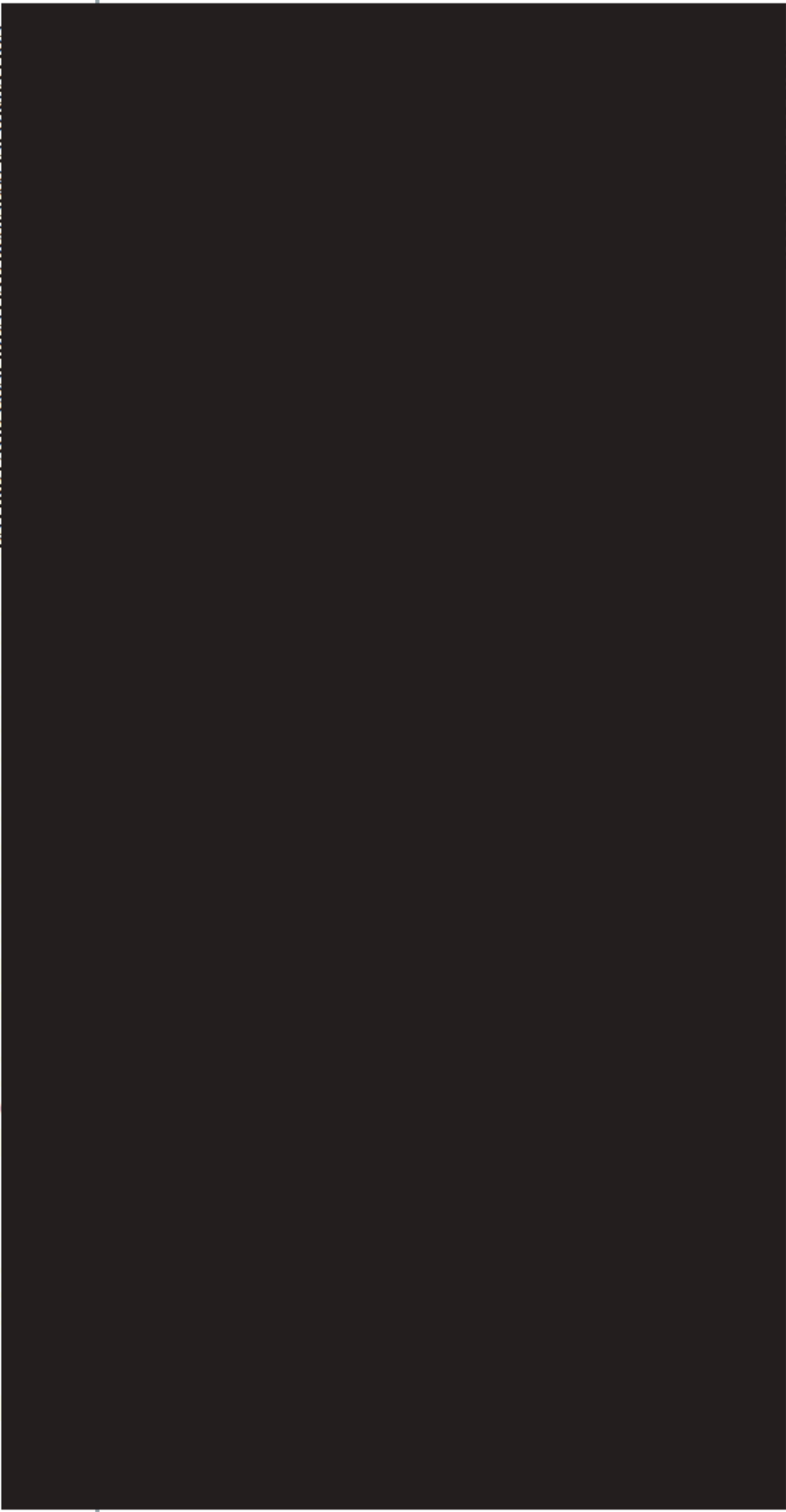
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**EATON**

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**From:** Vempati, Abhijyoth (A.R.)  
**Sent:** Monday, November 21, 2022 12:25 PM  
**To:** Kolodziejczyk, Jeffrey (J.A.); Adam, Paul (P.J.)  
**Subject:** FW: Ford Nano intake valve failure(second keeper groove) - engineering report  
**Attachments:** 2022eng273\_Ford Nano\_Intake Valve Field Failure.pdf

Jeff, Paul,

Regards,  
Abhi

---

**From:** Calafiore, Salvatore <SalvatoreCalafiore@eaton.com>  
**Sent:** Monday, November 21, 2022 9:44 AM  
**To:** Vempati, Abhijyoth (A.R.) <avempati@ford.com>; Hewlett, Matt (M.S.) <mhewlet1@ford.com>  
**Cc:** Strand, Tyson <TysonStrand@Eaton.com>  
**Subject:** Ford Nano intake valve failure - engineering report

**WARNING:** This message originated outside of Ford Motor Company. Use caution when opening attachments, clicking links, or responding.

Hello Abhi, Matt,  
Please find in attachment the report related to the priority n°2, discussed during the CPMT.  
Any question I am at your disposal.

Sincerely,

**Salvatore Calafiore**

Senior Engineer  
Valvetrain Core Engineering Vehicle Group, Eaton  
Corso Ferrucci 112 | Torino, Italy 10138  
Phone: +39 011 2208451  
Mobile: +39 342 9963780  
[SalvatoreCalafiore@Eaton.com](mailto:SalvatoreCalafiore@Eaton.com)



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Registrazione: 00050880319 ~ Partita IVA: IT12550010156

# Ford Nano

Intake Valve Field Failure

S. Calafiore  
November 21<sup>st</sup>, 2022

ref. 22318\_08756

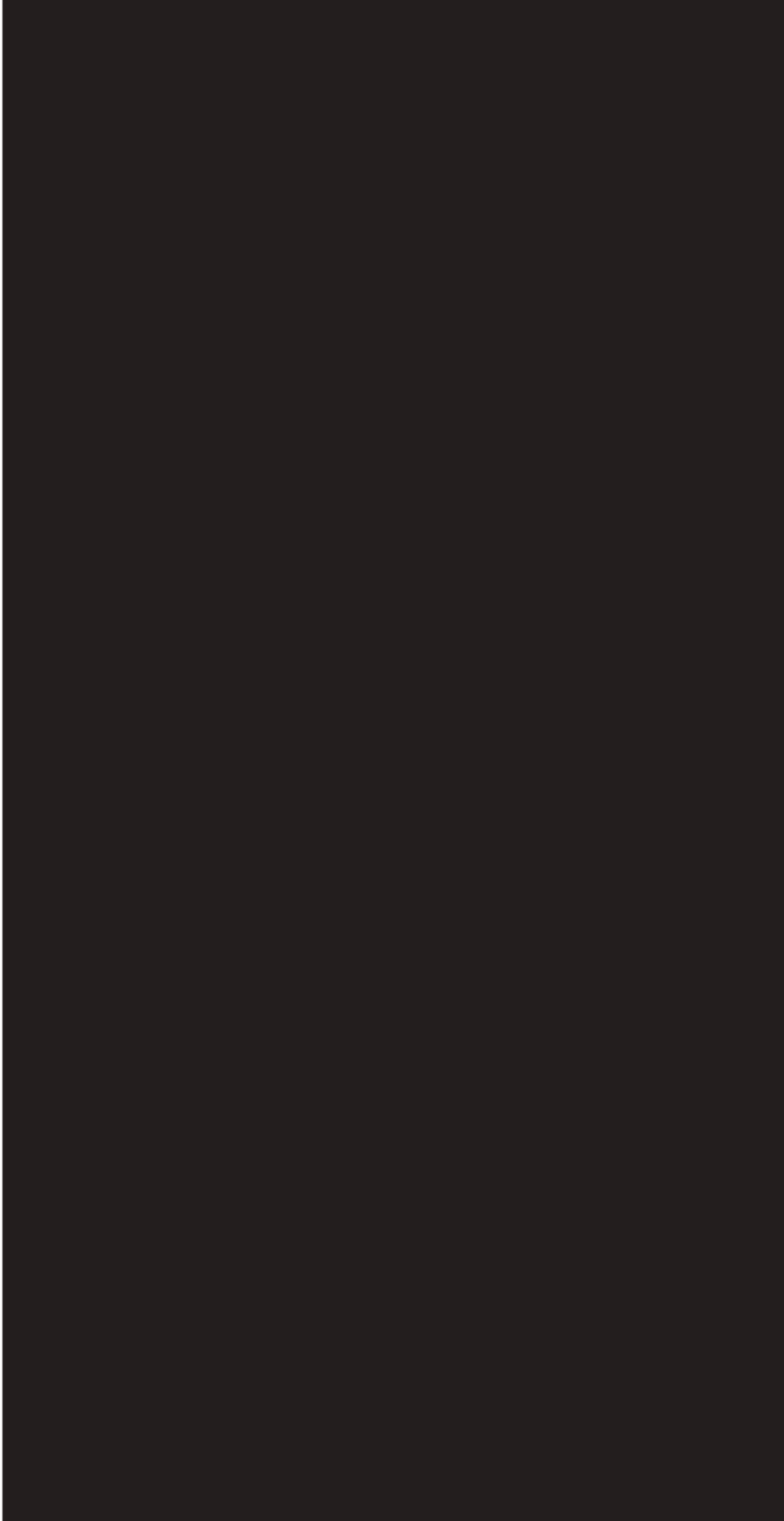
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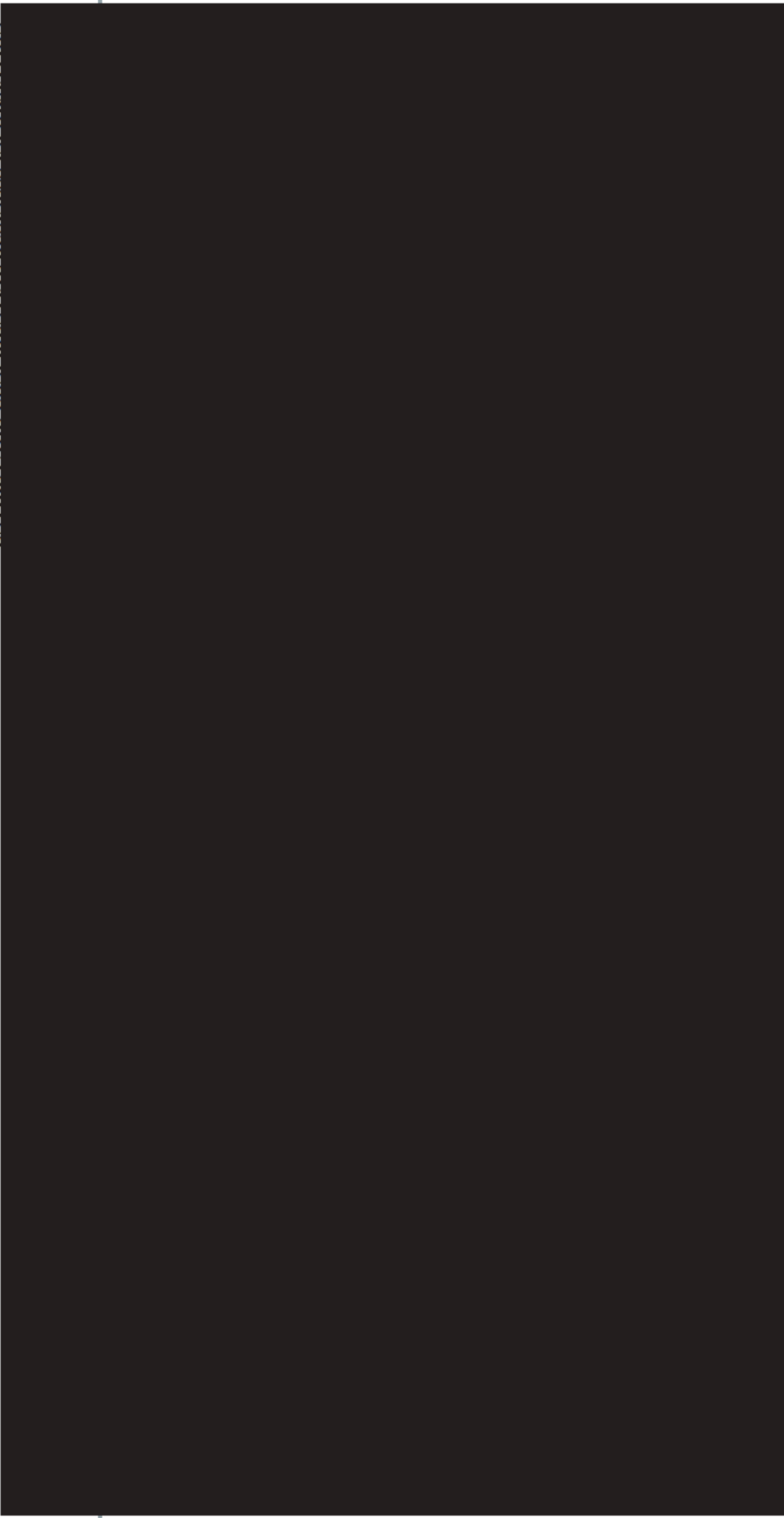


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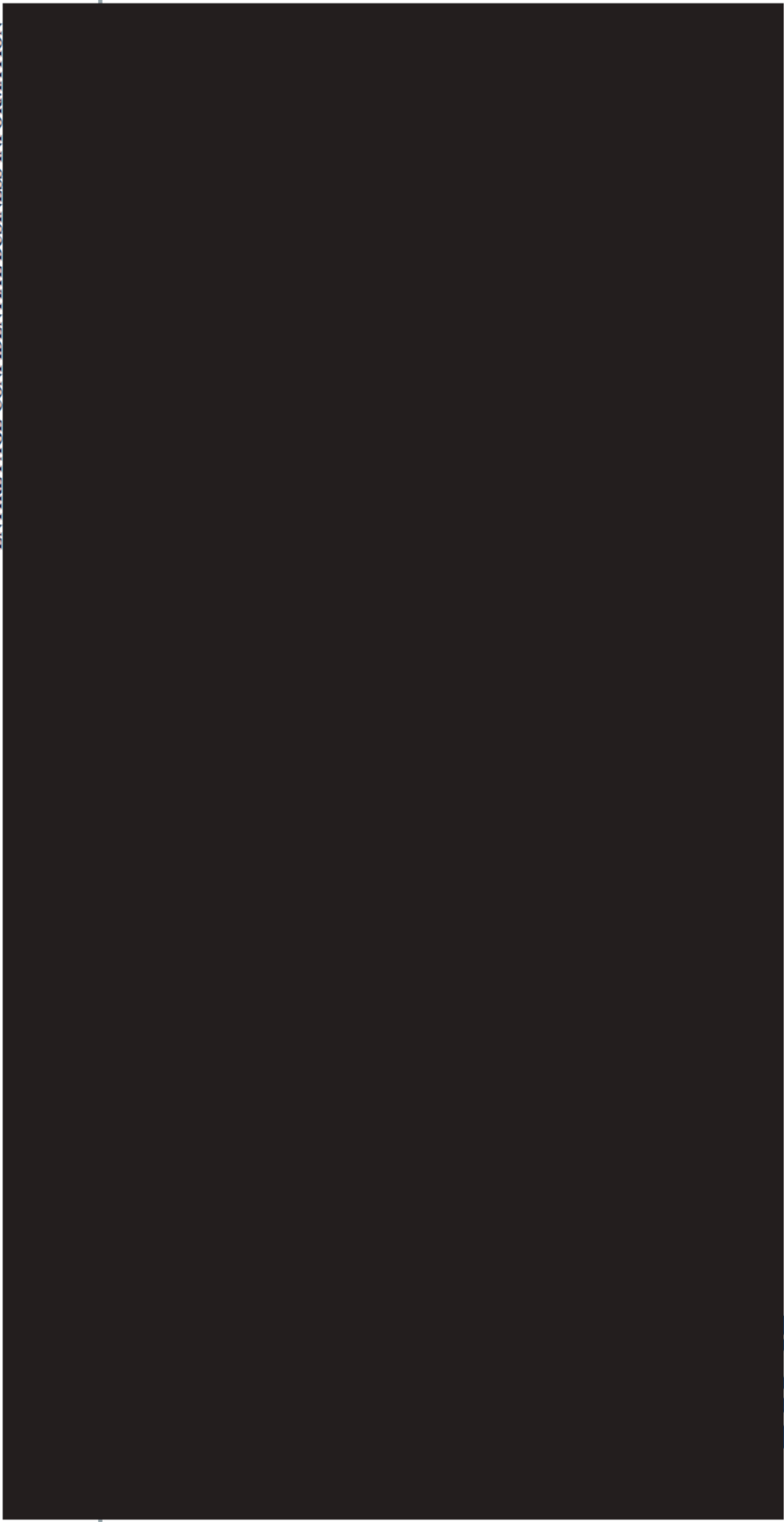
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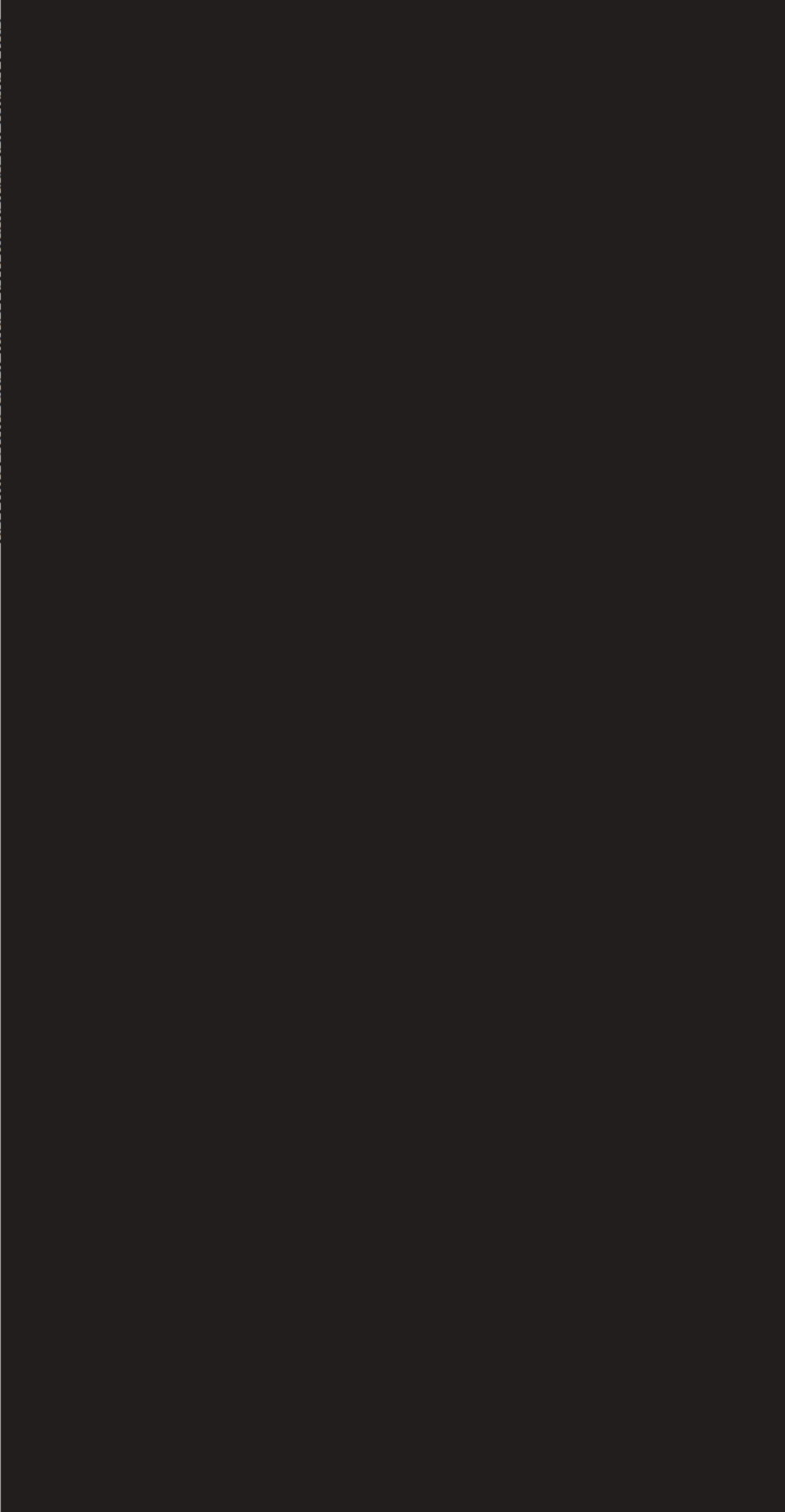
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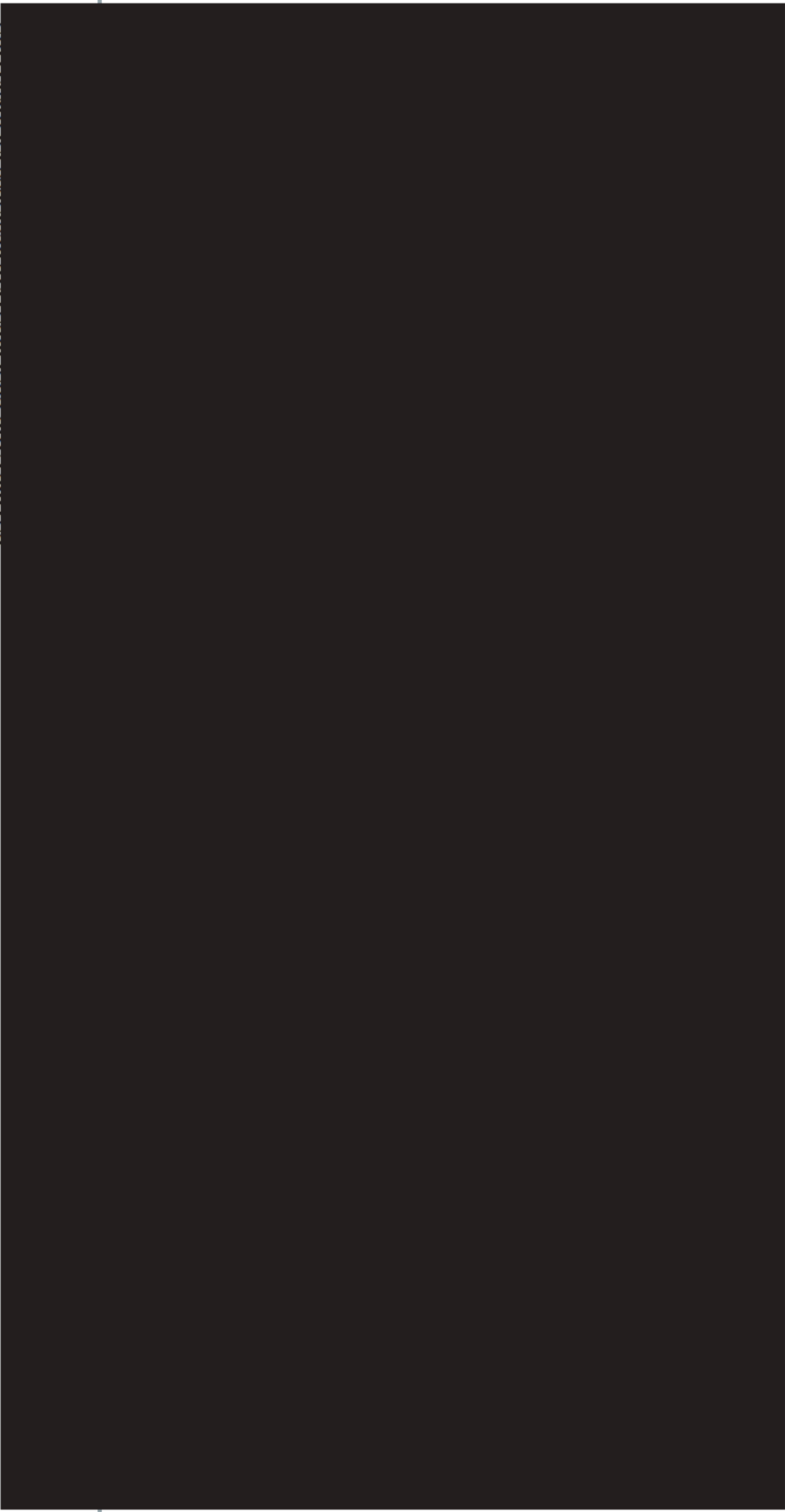
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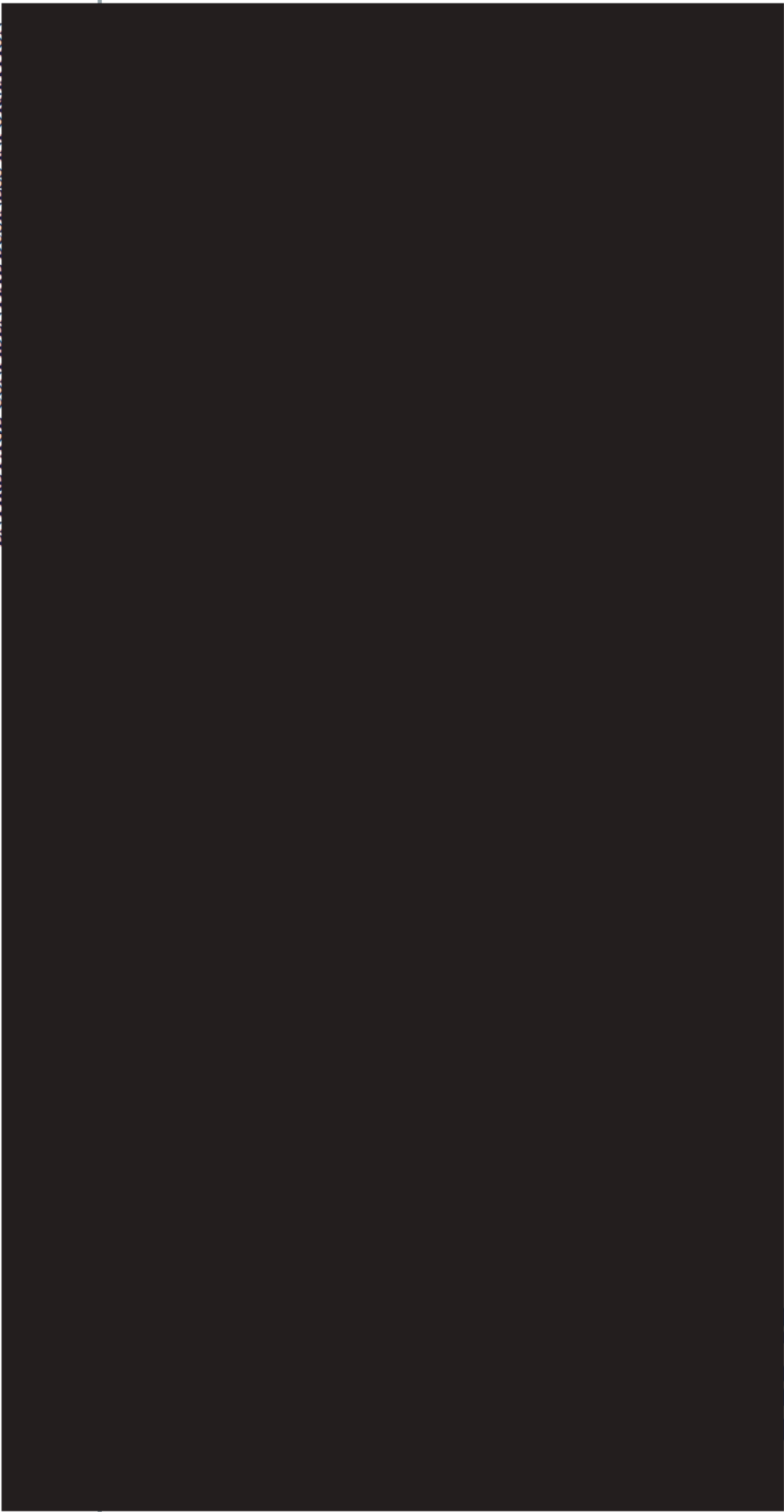
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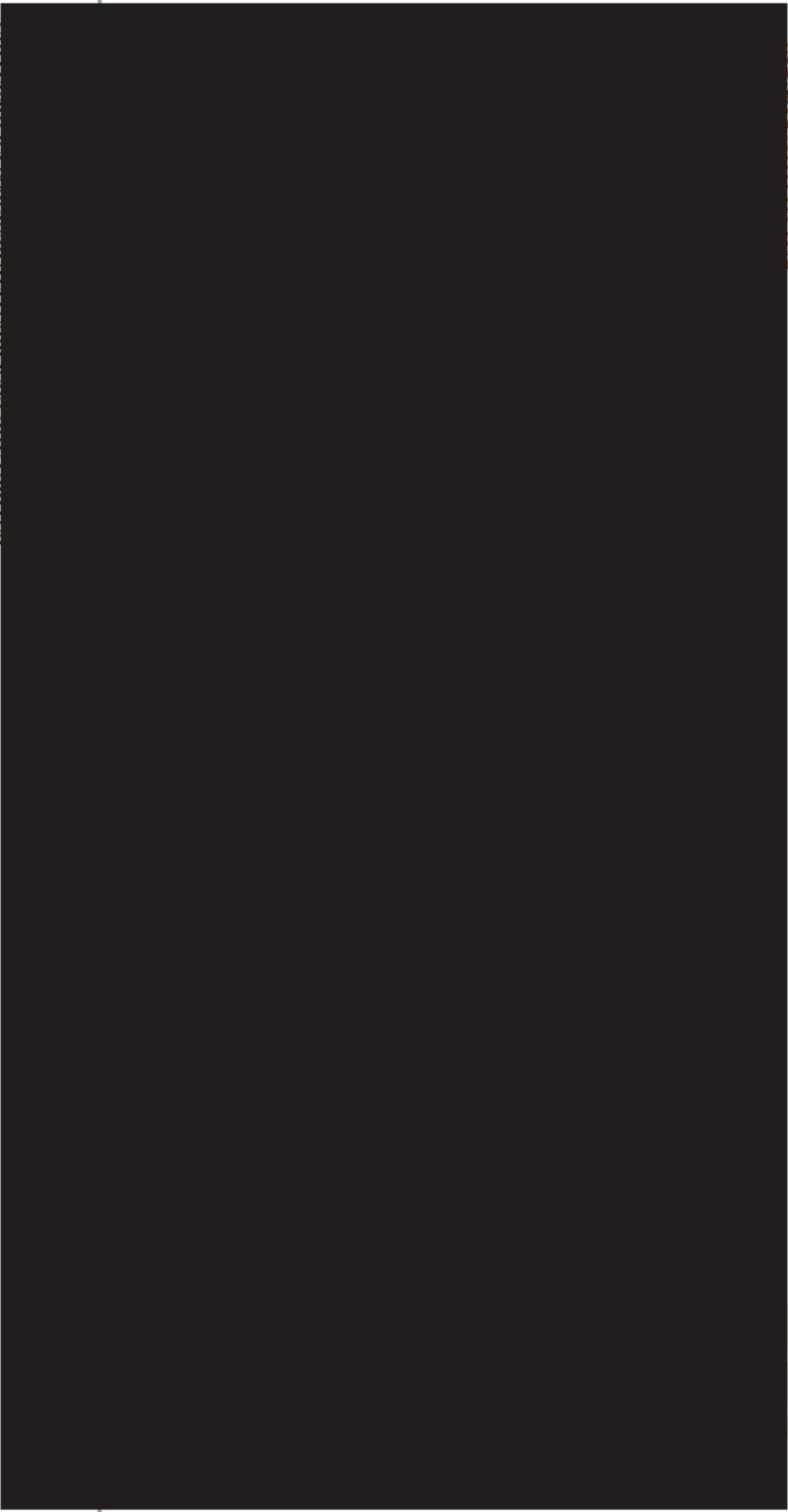
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EA23-002 000051 RE/EATON

**EATON**

*Powering Business Worldwide*



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**From:** LIA, LUIGI  
**Sent:** lunedì 29 agosto 2022 18:40  
**To:** Adam, Paul (P.J.) <[padam6@ford.com](mailto:padam6@ford.com)>  
**Subject:** RE: Grinder Burns Draft Specification

Hi Paul,  
You can find the reviewed draft specification in attachment.  
Please let me know if this can be accepted to proceed with PPAP preparation at BB.  
Thanks in advance,  
Luigi

-----Original Appointment-----

**From:** LIA, LUIGI  
**Sent:** lunedì 29 agosto 2022 15:08  
**To:** LIA, LUIGI; Adam, Paul (P.J.)  
**Subject:** Grinder Burns Draft Specification  
**When:** lunedì 29 agosto 2022 18:00-18:45 (UTC+01:00) Amsterdam, Berlino, Berna, Roma, Stoccolma, Vienna.  
**Where:** Microsoft Teams Meeting

Hello Paul,  
let me know if this slot fits your calendar.  
I would like to review the specification draft on grooves appearance in preparation to the Bielsko PPAP run.  
Luigi

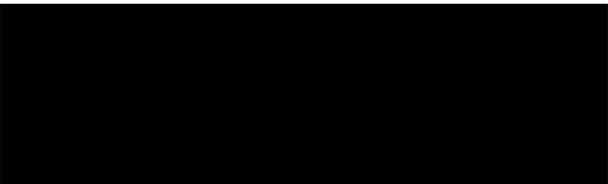
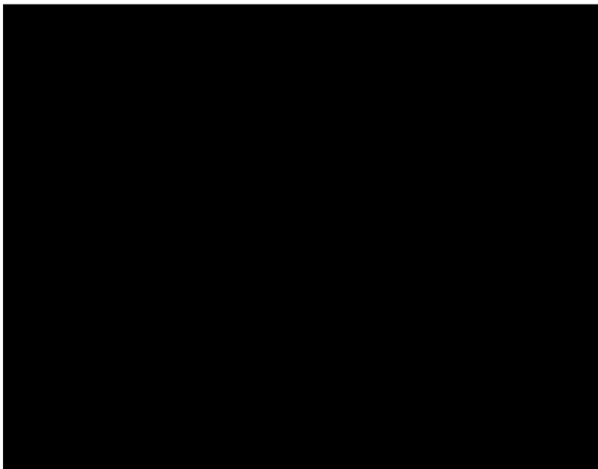
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