Title: T250, Uzbek Brake Fluid change.

Type: Part Type SubType: PWO - Usage and Spec Change

Owner: Semoon Choi Reason: CKD Request

Initiator: Jungwoo Song GPS Indicator: No Dress Part Indicator: No

Engineering Release Division: R Driver: Program Engineering Manager (PEM) Change Priority: 4R - Engineering Rework

Approver Company: General Motors

| Co-Author Names: | Application Engineer Names: | JV/Supplier Names: |
|------------------|-----------------------------|--------------------|
| Donghoon Sun | Otabek Jurayev | UzAuto Motors |
| Minsub Park | Otabek Jurayev | |

Driver Identification: From To Description: Rationale:

PEM(20Dec.2019) approve. T250, Uzbek Brake Fluid change. T250, Uzbek Brake Fluid change.

9986356 to 9274858.

 Lead Product Impact Chart:
 Model Year
 Product Line Code
 Program Code/RPO
 GPS Architecture Code
 In Launch

 2020
 RT
 T250 UZ
 No

| Product In | Product Impact Chart (PIC): | | | | | | | | | | |
|--|-----------------------------|---------|----|---------|---------|--|--|------|--|--|--|
| Lead Model Year Architecture Product Line Code Program Codes/RPO Lead Program DRD GPS Architecture Code WFUO Modifier Code | | | | | | | | | | | |
| Yes | 2020 | GMDAT-T | RT | T250 UZ | T250 UZ | | | URGT | | | |
| No | 2021 | GMDAT-T | RT | T250 UZ | | | | SOP | | | |

| В | uild Event | Build Event Comment | Updated Build Event | Updated Build Event Comment | In Launch | In Launch Program(s) | Finish Date | Plant | Mfg. Region |
|---|------------|---------------------|---------------------|-----------------------------|-----------|-------------------------|-------------|--------------------------|-------------|
| | | | | | No | | | Asaka City-Vehicle Plant | GMI |
| | | | | | No | | | Asaka City-Vehicle Plant | GMI |

Title:T250, Uzbek Brake Fluid change.Type:Part TypeSubType:PWO - Usage and Spec Change

| Part Action Tab : | | | | | | | | | | |
|-------------------|------------|---------------------------|-------------|---------------|---|----------------|--------------|---------------------|------------|-----------|
| Row Number: | 3 | | | | | | | | | |
| Change Action | Model Year | Product | DRD | GPS Arch Code | Current Part | Current DLS | Current PLS | Current Mass | Curren | t Mass Ce |
| REPL | 2020 | RT | | | 9986356 | | | 1.0570 | В | |
| New Part | New DLS | New PLS | New Mass | New Mass Cert | Indent Level | ASM | Next-Up | Seq# | UPC Prefix | (|
| 9274858 | | | 1.0570 | | | | | | - | |
| UPC | FNA | FNA Desc | VPPS | FNM | Family Address | Part Type | Part DRD | Broadcas | t Code | Pref Ind |
| 5E | 0800A | FLUID-HYD BRK (GLYCOL) | 20.04.01.98 | DOT4 | | L | R | 6356U | | |
| Eng Rel Div | KCDS Code | KCDS Code Desc | SDC | Model Code | | Prod Stk Disp | Serv Stk Dis | p Inter | changeable | • |
| R | | | Υ | C9QS | | USE | USEM | Yes, | New and Ol | d |
| | | | | | | | | | changeable | |
| Hand Code | Status | Qty | NOU | UOM | | Dynamic Torque | Static Torqu | е | | |
| | Р | 1 | 0.50000 | LT | | | | | | |
| Less Finish | Color Code | Color Name | Finish Code | Make From | Fastener Ind | Engr Code | ВГО | Math | Owner | |
| | | | | | | R869,RY15 | | | | |
| Torque Notes | | | Perm N | otes | | | | | | |
| Chart Number | GRM/MPF | Math # | Math Rev | Math Req | GD&T Req | Dwg Resp | Simi | lar To | Optional P | arts |
| 9274858 | | | | N | Not Required | GM Drawing | | | | |
| Supplier Part | MOP | SRC | MPD ID | MPD Item# | | | | | | |
| | ??? | ??? | 9999999 | 0800A | | | | | | |
| Part Comments | | | | | Change Log | | | | | |
| | | | | | Part DRD was S Part Type was C FNM was FOR BRAKE FL Chart Or Dwg # was | LUID | | | | |

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SubType: PWO - Usage and Spec Change Title: T250, Uzbek Brake Fluid change. Type: Part Type

Model Option Statements: PAT Row No.: 3

| Marketing Div/Vehicle | Series | Body Style Code | Options |
|-----------------------|--------|-----------------|-----------|
| 1 | TF | 69 | &MBN/MBR. |

Title:T250, Uzbek Brake Fluid change.Type:Part TypeSubType:PWO - Usage and Spec Change

| Part Action Tab : | | | | | | | | | | |
|-------------------|------------|---------------------------|-------------|---------------|---|----------------|---------------|------------------|-------------------|----------|
| Row Number: | 4 | | | | | | | | | |
| Change Action | Model Year | Product | DRD | GPS Arch Code | Current Part | Current DLS | Current PLS | Current Mass | Current | Mass Ce |
| REPL | 2021 | RT | | | 9986356 | | | 1.0570 | В | |
| New Part | New DLS | New PLS | New Mass | New Mass Cert | Indent Level | ASM | Next-Up | Seq# | UPC Prefix | |
| 9274858 | | | 1.0570 | | | | | | - | |
| UPC | FNA | FNA Desc | VPPS | FNM | Family Address | Part Type | Part DRD | Broadcas | t Code | Pref Ind |
| 5E | 0800A | FLUID-HYD BRK (GLYCOL) | 20.04.01.98 | DOT4 | | L | R | 6356U | | |
| Eng Rel Div | KCDS Code | KCDS Code Desc | SDC | Model Code | | Prod Stk Disp | Serv Stk Dis | p Inter | changeable | |
| R | | | Υ | C9QS | | NOST | NOST | | New and Ol | d |
| | | | | | | | | part a interd | are changeable | |
| Hand Code | Status | Qty | NOU | UOM | | Dynamic Torque | Static Torque | е | | |
| | Р | 1 | 0.50000 | LT | | | | | | |
| Less Finish | Color Code | Color Name | Finish Code | Make From | Fastener Ind | Engr Code | BFO | Math | Owner | |
| | | | | | | R869,RY15 | | | | |
| Torque Notes | | | Perm N | otes | | | | | | |
| Chart Number | GRM/MPF | Math # | Math Rev | Math Req | GD&T Req | Dwg Resp | Simil | ar To | Optional P | arts |
| 9274858 | | | | N | Not Required | GM Drawing | | | | |
| Supplier Part | MOP | SRC | MPD ID | MPD Item# | | | | | | |
| | ??? | ??? | 9999999 | 0800A | | | | | | |
| Part Comments | | | | | Change Log | | | | | |
| | | | | | Part DRD was S Part Type was C FNM was FOR BRAKE FL Chart Or Dwg # was | LUID | | | | |

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SubType: PWO - Usage and Spec Change Title: T250, Uzbek Brake Fluid change. Type: Part Type

Model Option Statements: PAT Row No.: 4

| Marketing Div/Vehicle | Series | Body Style Code | Options |
|-----------------------|--------|-----------------|-----------|
| 1 | TF | 69 | &MBN/MBR. |

Title: T250, Uzbek Brake Fluid change.

Type: Part Type SubType: PWO - Usage and Spec Change

Change Criteria - Distribution List Criteria

Yes

[x]No

Does this change affect Sealing?

Distribution Result: If "Yes" is selected, then the roles "DRE (Design Release Engineer) - Sealant and Adhesives" (Vehicle only) and "DRE (Design Release Engineer) - Sealing" (GPS only) will added as information only tasks [Elaborate].

Yes

[x]No

Does this change impact Labels?

Distribution Result: If "Yes" is selected, then the role "DRE (Design Release Engineer) - Labels" will be added as an information only task [Elaborate and Execute].

Yes

[x]No

Does your change impact the way the customer interfaces with the vehicle (for example, operator switches, displays, controls, vehicle service, other features) OR is this a safety or regulatory change that is documented in the owner manual?

Distribution Result: If "Yes" is selected, then the role "DRE (Design Release Engineer) - Literature" will be added as an information only task [Elaborate and Execute].

Yes

[x]No

Does this ECR affect the material of any part? (i.e. material specification, material grade, material source, etc.)

Distribution Result: If "Yes" is selected, then the role "Materials Engineer" will be added as an information only task [Elaborate].

Yes

[x]No

Does this change affect Accessory Components/Kits or Performance Parts?

Distribution Result: If "Yes" is selected, then the role "DRE (Design Release Engineer) - Accessory" will be added as an information only task [Elaborate].

Yes

[x]No

Does this change violate any best practices or affect Corporate Common Component (CCC) parts or interfaces?

Distribution Result: If "Yes" is selected, then the role "BFO (BOM Family Owner)" will be added as a due task [Elaborate].

Yes

[**x**]*N*o

Does this ECR release Corporate Common Components (CCC) or Corporate Managed Solutions (CMS) to Book I only?

Distribution Result: If "No" is selected, then the role "MFG - Manufacturing Engineer" will be added as a due task [Elaborate].

Yes

[x]*N*o

Does this change affect studio 'A' surface?

Distribution Result: If "Yes" is selected, then the role "VSE (Vehicle System Engineer)" will be added as an information only task [Elaborate].

Yes

[x]No

Does this change affect any part masses?

Distribution Result: If "Yes" is selected, then the role "Vehicle Performance Engineer - Mass" will be added as an information only task [Elaborate].

Yes

[x]No

Does this change affect fastener torques and/or torque notes?

Distribution Result: If "Yes", then the role "DRE (Design Release Engineer) - Fastener" will be added as an information only task [Elaborate and Execute]

NOTE:

Title: T250, Uzbek Brake Fluid change.

Type: Part Type SubType: PWO - Usage and Spec Change

-If assemblies on this ECR contain threaded component fastener part number(s) that do not currently have service torques specifications documented, then include them on the Part Action Tab and document the service torque specifications accordingly.

-If unknown, then contact the assembly part supplier for the service torque specifications.

Yes

[x]No

Does this change affect fastener usages (i.e. new part number, quantity change, restriction statement change, etc.)?

Distribution Result: If is "Yes", then the role "GPSC - Buyer - Fastener" will be added as a due task [Elaborate and Execute].

[x] Yes

No

Does this change affect components of a Service Kit?

Distribution Result: If "Yes" is selected, then the role "Generic - Co-Author" will be added as a due task [Draft] and as an information only task [Investigate].

Note: add the approriate Service - Aftersales Engineer as a "Generic - Co-Author".

[x] Yes

No

Does this change involve another Region(s) where an Application Engineer (AE) supports you?

Distribution Result: If "Yes" is selected, then the role "Application Engineer" will be added as a due task [Draft].

[x] Yes

No

Is the estimated completed change after the -55 week milestone (Launch CAB Start Date) on the GVDP?

Distribution Result: If "Yes" is selected, then the role "GPSC - CIC (Change Implementation Coordinator)" will be added as a due task [Execute].

Yes

[x]No

Are ALL parts on this ECR manufactured In-House by GM (MFD, GMCH...etc.)?

Distribution Result: If "Yes" is selected, then the role "GPSC - Buyer" will be changed from a due task to an information only task [Elaborate].

Distribution Result: If "Yes" is selected, then the roles "MFG - Plant Coordinator" (Vehicle only), "MFG - Material Program Analyst", and "MFG - Contract Coordinator" will be added as information only tasks [Elaborate and Execute].

Yes

[x]No

Are ANY parts on this ECR manufactured In-House by GM (MFD, GMCH...etc.)?

Distribution Result: If "Yes" is selected, then the roles "MFG - Plant Coordinator" (Vehicle only), "MFG - Material Program Analyst" and "MFG - Contract Coordinator" will be added as information only tasks [Elaborate and Execute].

Yes

[x]No

Does this change impact Export, Regulatory, Emission Certification, or Type Approval requirements in any Region where the vehicle is built or sold?

Distribution Result: If "Yes" is selected, then the role "Certification Engineer" will be added as an information only task [Elaborate and Execute].

Yes

[x]No

Does this change impact tooling cost?

Distribution Result: If "Yes" is selected, then the role "Finance - Capital Management Analyst" will be added as a due task [Execute].

Yes

[x]No

Is this a Global/Joint Development Program where PATAC/SGM is the homeroom region or a China only Program?

Distribution Result: If "Yes" is selected, then the roles "Cost Engineer" and "VTE (Vendor Tooling Engineer)" will be added as due tasks [Investigate].

Yes

[x]No

Do changes on the ECR only impact China region piece cost or tooling cost?

Distribution Result: If "No" is selected, then the role "Finance - Analyst - PET" will be added as an information only task (GPS only) [Elaborate and Execute].

SubType: PWO - Usage and Spec Change Title: T250, Uzbek Brake Fluid change. **Type:** Part Type

Distribution Result: If "No" is selected, then the role "Finance - Capital Management Analyst" will be added as a due task [Execute].

[x]No
Is this a PATAC/SGM Application Program ECR (manufactured in SGM and PATAC is not engineering design center)?
Distribution Result: If "Yes" is selected, the AVLE - Assistant Vehicle Line Executive will be added as an information only task [Investigate].

Title: T250, Uzbek Brake Fluid change. Part Type SubType: PWO - Usage and Spec Change Type:

Change Criteria - General Change Criteria

Yes

[x]No

Does the change affect fit, form, function or interchangeability of the component, subsystem or system as defined by GMW17205 Engineering Standard? https://documents.gm.com/gdm3/drl/objectld/090163bc840096fd/chronicleld/090163bc8240a4ec

If no, explain why not:Carry-over Part repelce. Select that the DRBFM is "Not Required" on this ECR.

Yes

[x]No

Does this change affect Energy Efficiency? (Government Requirement)

Yes

[x]No

Are any parts on Part Action Tab assembled on vehicles exported to or sold in China?

[x]No

Are there containment activities ongoing or planned?

Title: T250, Uzbek Brake Fluid change.

Type: Part Type SubType: PWO - Usage and Spec Change

Change Criteria - Instructions

- * Instructions
- * A Visual Change Document (VCD) is required and must be attached to this ECR for the following subtypes: Part Chg with New Part Number / Part Chg without New Part Number / Usage and Spec Change (except for changes to RPOs, Model Restrictions, Marketing Division) / P Release (with math changes) / Deviation to Tech Specs (Vehicle Only) (Note: A VCD is NOT required for Literature only changes regardless of subtype).
- * Note: Production Cost information is added on the Cost & Timing Tab only.
- * For DRE Job Aid with instructions & reference material, go to (Link): https://gmweb.gm.com/sites/edgeusercommunity/SitePages/ECM%20Documents-Job%20Aids%20(Controlled).aspx
- * For the Corporate Common Component (CCC) training go to (Link): https://gmweb.gm.com/sites/GBOM_Reuse/gcsr/Pages/CCC%20CMS%20CGS%20Home.aspx
- * If this ECR has to be processed in Design or Specs before or after other ECR(s) (i.e. stacked change), then add the corresponding ECR(s) and note the sequence in the Stacking area of this ECR.

Attachments:

| File Name | Attached On | Attached By | Attachment Type | Attachment Description | Secured Attachment | Attachment Revision |
|--|--|-------------|------------------------------|------------------------|-----------------------|------------------------|
| 4034693 VCD T250 brake fluid change.xlsx | Thursday, January 9, 2020 12:09:08 AM | Semoon Choi | VCD - Visual Change Document | | Yes | 1 |

| V۵ | lidation | Plan | |
|----|----------|------|--|
| | | | |

| Validation Type | Validation Activity | Validation Plan Details | Statement | Reviewed On |
|--------------------------|------------------------------|------------------------------|-----------|-------------|
| DRBFM Statements | DRBFM Not Required | | | |
| Validation Activity Plan | VALIDATION PLAN NOT REQUIRED | VALIDATION PLAN NOT REQUIRED | | |

Distribution:

| Sort Order | Plan Type | Activity | Activity Title | Activity Type | Assigned | Role | Company | Group Name | Email Id | Contact Number | Manually Modified By | Originally Assigned |
|---------------|--------------|------------------|--|------------------|----------------|---------------------------------------|---------|---------------|----------|-------------------|-------------------------|------------------------|
| 1 | ECR | Draft 10.1 | Create ECR, provide cost & timing estimates (if required) and attach VCD. DOCUMENT VALIDATION PLAN | DueTask | Semoon Choi | Generic - Change Owner | | | | | | |
| 2 | ECR | Draft 20.2 | Approve Change | DueTask | Minsub Park | Generic - Co- Author | | | | | Semoon Choi | |
| 3 | ECR | Draft 30.1 | Support Math Owner by providing plant impactsapprove change. | DueTask | Otabek Jurayev | Application Engineer | | | | | | |
| 4 | ECR | Investigate 10.1 | Ensure quality of ECR VCD, DRBFM, cost estimates of Impacted parts and approve proposed change. | DueTask | Donghoon Sun | EGM (Engineering Group Manager) | | | | | Semoon Choi | |

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Title:T250, Uzbek Brake Fluid change.Type:Part TypeSubType:PWO - Usage and Spec Change

| istrib | ution: | | | | | | | | | | | |
|-------------|--------------|--------------------------------|--|------------------|----------------------|---|---------|---------------|----------|-------------------|-------------------------|------------------------|
| ort rder | Plan Type | Activity | Activity Title | Activity Type | Assigned | Role | Company | Group Name | Email Id | Contact Number | Manually Modified By | Originally Assigned |
| 5 | ECR | Investigate 10.2 | Ensure ECR is complete, GPDS Part Release EDIT & PULLS NPNs | DueTask | Jungwoo Song | Specifications Analyst - Production | | | | | | |
| 12 | ECR | Investigate 20.1 - Information | Courtesy Notify | InfoTask | Songhyun Ryu | DGM (Design Group Manager) | | | | | Jungwoo Song | |
| 13 | ECR | Investigate 20.2 | Review ECR completeness (i.e. designmanufetc.) prior to initiating Elaboration. | DueTask | Semoon Choi | Generic - Change Owner | | | | | | |
| 17 | ECR | Investigate 30.1 - Information | Verify and Update Distribution List | InfoTask | Donghoon Sun | Generic - Co- Author | | | | | Semoon Choi | |
| 26 | ECR | Elaborate 10.9 | Send RFQ to supplier and obtain supplier final quote (i.e. Tooling \$PC \$) lead weeks, enters supplier info into cost & timing section of ECR. Engage CE if over threshold. | DueTask | Sardor Khudayarov | GPSC - Buyer | | | | | Semoon Choi | |
| 28 | ECR | Elaborate 10.11 | Document MFG quote | DueTask | Azizbek Turgunov | MFG - Manufacturing Engineer | | | | | | |
| 31 | ECR | Elaborate 10.14 | Document validation plan and lead weeks | DueTask | Otabek Jurayev | VE (Validation Engineer) | | | | | | |
| 32 | ECR | Elaborate 10.15 - Information | Determine Serviceability Impact | InfoTask | Dilshod Magamedov | Service - Aftersales Engineer | | | | | | |
| 54 | ECR | Elaborate 10.38 - Information | Courtesy Notify | InfoTask | Scott J Fletcher | Total Compliance Engineer | | | | | Semoon Choi | |
| 55 | ECR | Review 20.1 | Approve Technical Review | DueTask | Donghoon Sun | EGM (Engineering Group Manager) | | | | | Semoon Choi | |
| 56 | ECR | Review 20.2 - Information | Initiate Tech Review | InfoTask | Semoon Choi | Generic - Change Owner | | | | | | |
| 59 | ECR | Review 30.1 | Manage the Change & schedule for CAB or PEM Offline Approval | DueTask | Dochyun Lee | CL (Change Leader) Vehicle | | | | | | |
| 61 | ECR | Review 40.1 | "Review / Update TID & approve by CRB/CAB or Proxy (PEM &/or MFO / Change Leader) CONDUCT ORGANIZATIONAL REVIEW & CONDUCT COST REVIEW" | DueTask | Sangseok Kim | PEM (Program Engineering Manager) | | | | | Semoon Choi | |
| 64 | ECR | Approved 10.1 - Information | Courtesy Notification ECR Approved | InfoTask | Dochyun Lee | CL (Change Leader) Vehicle | | | | | | |
| 65 | ECR | Approved 10.2 - Information | Courtesy Notification ECR Approved | InfoTask | Semoon Choi | Generic - Change Owner | | | | | | |

Title:T250, Uzbek Brake Fluid change.Type:Part TypeSubType:PWO - Usage and Spec Change

| Distribution: | | | | | | | | | | | | |
|---------------|--------------|---------------|----------------|------------------|-------------|------------|---------|---------------|----------|-------------------|-------------------------|------------------------|
| Sort Order | Plan Type | Activity | Activity Title | Activity Type | Assigned | Role | Company | Group Name | Email Id | Contact Number | Manually Modified By | Originally Assigned |
| 106 | ECR | Complete 10.1 | Close ECR | DueTask | Dochyun Lee | CL (Change | | | | | | |

| Permanent Notes: | | | | | |
|---|-----------|-------------------|--|--|--|
| Comments | ECR State | Modified BY | Modified On | | |
| Activity: Draft 20.2 Action Taken: Rework Role: Generic - Co-Author Comments: Need to change service engineer | Rework | Minsub Park | Friday, January 10, 2020 12:57:33 AM | | |
| Activity: Draft 20.2 - Rework Task Action Taken: Rework Assign To Complete Comments: Could you delicate co-auther to Kanha Kim | Rework | Semoon Choi | Friday, January 10, 2020 1:44:42 AM | | |
| Activity: Draft 20.2 - Rework Task Action Taken: Rework Assign To Complete Comments: Could you delicate co-auther to Kanha Kim | Rework | Semoon Choi | Friday, January 10, 2020 1:44:50 AM | | |
| Activity: Elaborate 10.9 Action Taken: Activity Complete Role: GPSC - Buyer Late Reason: u, Waiting Supplier Info Late Reason Comment: completed Comments: Late Reason: u, Waiting Supplier Info; Late Reason Comment: completed; | Elaborate | Sardor Khudayarov | Thursday, January 23, 2020 1:33:11 AM | | |
| Activity: Elaborate 10.11 Action Taken: Activity Complete Role: MFG - Manufacturing Engineer Late Reason: \$, Other Late Reason Comment: ME impact analyzed Comments: Suitability of Brake oil equipment on the line for new material will be analyzed with supplier. | Review | Azizbek Turgunov | Wednesday, February 12, 2020 6:14:29 AM | | |
| Activity: Review 30.1 Action Taken: Activity Complete Role: CL (Change Leader) Vehicle Late Reason: \$, Other Late Reason Comment: HOLIDAY Comments: CL AUDIT COMPLETED. | Review | Dochyun Lee | Monday, February 17, 2020 1:14:16 AM | | |
| MPL updated & CBR review. | Execute | Jungwoo Song | Monday, February 17, 2020 1:33:29 AM | | |

Title:T250, Uzbek Brake Fluid change.Type:Part TypeSubType:PWO - Usage and Spec Change

| Implementation Plan: | | | | | | |
|----------------------|---|-----------------|--|--|--|--|
| Project Number | Name | Project Manager | Sched Start Sched Due Status Comments Description | | | |
| 21722 | IP-4034690-T250, Uzbek Brake Fluid change. | Dochyun Lee | Monday, February Thursday, May 7, Active 17, 2020 12:00:00 2020 12:00:00 AM AM | | | |
| Scheduling Mode | Project Update Mode | Master Plan | Ph 1 Ph 2 Ph 3 Ph 4 | | | |
| Interactively Only | On Activity Updates | Yes | 0 0 0 0 | | | |

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