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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Identification** | | | | | | | |
| **Project Name** | | | | | | | |
| Project Toyo Tires TE + CA | | | | | | | |
| **Organization** | | | | | | | |
| Toyo Tires | | | | | | | |
| **Project Manager** | | | | **Work Stream** | | | |
| Ketan Rathor | | | | Order to Cash | | | |
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| **Version** | | **Status** | | | **Date (YYYY-MM-DD)**  *<right click date to update, instruction will not print>* | **Document Classification** |
| 1.5 | | Ready for DEV | | | 2023-02-20 | Shared |
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| **Functional Author** | | Morley Jack | | | | |
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| **Revision Date** | **Revised By** | | **Comments** | | | | |
| 01/07/2023 | Morley | | Revision and enhancements | | | | |
| 01/27/2023 | Morley | | Enhance 3.1.2.5 and 3.1.2.8, add 3.1.3 | | | | |
| 02/06/2023 | Morley | | Modify re SAP incident 92932 / Note 3297867 in 3.1.2 | | | | |
| 02/20/2023 | Morley | | Additional fields for Supplier claim output 3.1.2.5 | | | | |
| 05/05/2023 | Morley | | Change to characteristics + MW search strategy | | | | |
| 06/26/2023 | Morley | | CR-082 OTD rounding change @ 3.1.2.5 | | | | |
| **Approval History** | | | | | | | |
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# General Information

## Overview

The Hybris Warranty Portal will send warranty claims to S/4 as WRANTY02 IDocs. The Warranty module must receive and process these IDocs. CPI will be the middleware to manage the call of the function module to be built.

## Business Requirements

Before warranty claim tire items can be processed in the Warranty module, there are some processing pre-steps that are necessary. This is due to the fact that Toyo/Nitto tires are not individually identifiable items in the Toyo system.

SAP requires that any item being submitted for warranty processing be a uniquely identifiable item, or technical object. We will create an equipment (serial number) object for each tire for warranty processing purposes.

For anyone not familiar with this area of SAP, an “equipment” is simply SAP’s internally assigned number for a particular “material number + serial number” combination. Individuals experienced in this area talk about seral numbers associated with materials prior to their sale. Post-sales transactions in Customer Service and Warranty Management are commonly talked about using the equipment number. It is the same physical object, just different ways of addressing it. For our purposes, equipment and serial number may be used interchangeably; we are referring to a specific tire.

## Assumptions

Although the primary concern is the Hybris Warranty Portal, warranty claims may also be submitted directly through EDI and entered manually in SAP from paper-based forms. The transformations described herein are necessary in all situations and scenarios. To this end, it is recommended that the suite of SAP-supplied BAdIs be used wherever possible.

See menu path OWTY 🡪 Business Add-Ins (BAdIs).

## Integration Points and Dependencies

## Security and Control Considerations

## Other Relevant Information

The subject of DOT serial numbers or DOT IDs shows up several times below. This is an identification stamped on the side of every tire by the manufacturer. This is provided to give some context to what follows:

Graphical user interface

Description automatically generated

The eleven character string CX5YF761309 comprises the whole of the DOT ID, but there are actually four groupings of characteristics: Plant Code, Size Code, Manuf. ID, and Week+Year of manufacture. The first field may be two or three characters long; the combination of size code + manufacturer ID may be five or six characters. The entire string will be eleven to thirteen characters.

# Functional Unit Test Scenarios

| Test Case | Description | Fiori Tile / Navigation | Expected Results |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# Interfaces

|  |  |
| --- | --- |
| Program Type | Batch Interface,  Online / Real-time Interface |
| Interface Type | EDI / IDOC,  ALE,  BAPI,  Web Service,  Other |
| Interface Direction | Inbound,  Outbound,  Both |
| Created With | SAP Standard / PI,  Add-on Interface |
| External System | Hybris WRANT02 |
| Contact for External system |  |

## Detailed Functional Description

No change.

### Prepare to Create Equipment for Warranty Material

No change.

#### Retrieve FactorySerial record

No change.

#### Determine Reimburser Vendor number

No change.

#### Determine next available SERNR

No change.

#### Determine Master Warranty

No change.

### Create Equipment for Warranty Material

#### Initial Screen

No change.

#### General data

No change.

#### Location data

No change.

#### SerData data

No change.

#### Classification data

***The following section contains the change for this Change Request***

Following the path of manually creating the equipment, the next step would be to click on <Class overview> at the top of the screen.

Graphical user interface, text, application, table

Description automatically generated

In practice it may be necessary to use IBIP t-code, upload program 0140 or similar

Populate the AUSP classification data by copying from this material’s Material Master classification data as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Technical Name | Value | Description / Explanation |
| Object | OBJEK | EQUNR (full 16 digit nr w/leading zeros | Equipment number just created, if forced to save it and assign classification as a separate task |
| Class Type | KLART | “002” | Equipment Class. Auto-populates when doing from within EQUI-Create. |
| Class | CLASS | “TOYOTIRES” | Assign configured class |
| Description | Characteristic |  | Item type |
| Original Tread Depth | ORIGINAL\_TREAD\_DEPTH\_32 |  | 2.1 CHAR num. Original tread depth in 32nds of an inch |

Original tread depth is stored in the material characteristics as a 2.1 digit number, with one decimal place of precision. For Warranty purposes we need to round this to the nearest integer number as follows:

* OTD = nn.1 -to- nn.5 rounds down / truncates to nn. i.e. 13.5 or less rounds down to 13.0
* OTD = nn.6 -to- nn.9 rounds up to nn+1. i.e. 13.6 or up rounds up to 14.0

#### Measuring Points / Counters data

No change.



#### Assign Master Warranty

No change.

### Record Measurement Readings

No change except that the OTD will now be a rounded, full integer number based on the change made at 3.1.2.5.

## Source Side

|  |  |
| --- | --- |
| Relevant Tables |  |
| Description of Interface |  |
| File(s) |  |
| Input File Location |  |
| Layout |  |
| Archive notes/locations |  |

## Middleware

|  |  |
| --- | --- |
| Description of Interface |  |
| Inbound File(s) |  |
| Input File Location |  |
| Outbound File(s) |  |
| Outbound File Location |  |
| Mapping |  |
| Logic or lookup systems/tables |  |
| Archive notes/locations |  |

## Target Side

|  |  |
| --- | --- |
| Relevant Tables |  |
| Description of Interface |  |
| File(s) |  |
| File Location |  |
| Layout |  |
| Archive notes/locations |  |

## Detailed Technical design

<All objects created for this WRICEF  
Specific Code logic that needs to be understood to support  
Technical dependencies>

## Reporting/Notification Requirements

<Details for reporting and/or notification of management and error processing>

## Reconciliation Procedures and Audit Requirements

<Procedures and responsibilities for monitoring and reconciling errors and providing audit information>

## Process Flow

<Insert process flow >

## Partner Profile (if necessary)

| Partner | Direction | Message type | Message function |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Sample Files

## Batch Information

<Frequency, dependencies, recipients, etc>