Technical Bulletin

 Bulletin Type: – OEB
Number: – 2017/XXX
Revision: – A

Subject: DCST – DOT New Classification and Packaging Requirements

| Issued Date: | 15-Jul-17 | Effective Date: | 15-Jul-17 | Target Completion: | N/A |

Affected Series / Product Family / Equipment:

| File Code: | 4.07.50 |
| Tool Mnemonic: | DCST |
| Technical Object Type: | LLS6PO0004 |

Bulletin Category

☐ ALERT ☒ Mandatory
☐ Informative ☐ Field Test
☐ NOMEM ☐ Other Specify

Implementation Priority

☐ Emergency Mandatory Change
☐ Implement immediately upon receipt
☒ Immediate Mandatory Change
☐ Implement prior to next deployment of equipment to field
☐ Scheduled Mandatory Change
☐ Implement during scheduled maintenance
☐ Information
☐ Implement as required

References

CPI#: N/A R/A#: 2010530880
RTA#: N/A Task #: N/A
Purpose

The purpose of this document is to inform all personnel that the following changes have been applied to the Jet Research Center™ Drill Collar Severing Tools;

- The shipping classification is changed from 1.4S to 1.4D by the USA Department of Transportation (DOT)
- Changes in the packaging requirements of the DCST explosive components.
- UN Number is changed from UN0349 to UN0444
- New EX Number EX2016020739 shall replace and supersede the current EX number on all packages holding DCST explosives.

All locations that hold a stock of DCST shall repackage to comply with the new shipping class changes

| Affected Parts / Materials / Software / Firmware |

Table 1 – Affected Tools

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT, DCST,PELT/CRTG,1.375IN, HMX, 589.2G</td>
<td>101214053</td>
<td>ALL</td>
</tr>
<tr>
<td>KIT, DCST,PELLET/CRTG,HNS,1.375IN,535.6G</td>
<td>101237459</td>
<td>ALL</td>
</tr>
<tr>
<td>KIT, PELLET/CRTG,1.75 IN,HMX,DCST,993.5G</td>
<td>101293167</td>
<td>ALL</td>
</tr>
<tr>
<td>KIT, DCST,PELLET/CRTG,1.75 IN,HNS,971.5G</td>
<td>101293207</td>
<td>ALL</td>
</tr>
<tr>
<td>KIT, PELLET/CRTG, 2 IN,HMX,DCST, 1340.4G</td>
<td>101293168</td>
<td>ALL</td>
</tr>
<tr>
<td>KIT, DCST,PELLET/CRTG,HNS, 2 IN,1346.6G</td>
<td>101293234</td>
<td>ALL</td>
</tr>
<tr>
<td>KIT, PELLET/CART, HMX,2.625 DCST, 2.355 KG</td>
<td>101293152</td>
<td>ALL</td>
</tr>
<tr>
<td>KIT, DCST,PELLET/CRTG,2.625IN,HNS 2509.2G</td>
<td>101293235</td>
<td>ALL</td>
</tr>
</tbody>
</table>

Table 2 – Required Kit to relabel the outer boxes

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT,DCST,BULK SPLS,1.4D,CLEAR, BRN TAPE</td>
<td>102710870</td>
<td>B</td>
</tr>
</tbody>
</table>

Table 3 – Required Kit to repack cartridges into separate trays

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT, DCST REBUILD, TRAYS,BAGS,DESSICANT</td>
<td>102708927</td>
<td>ALL</td>
</tr>
</tbody>
</table>

Table 4 – Required Kits to copy over the Manufacture date, batch and order numbers
Table 5 – Stapler and Stapes required to reclose boxes—**OPTIONAL** but required to reseal boxes

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAPLER, KIHLBERG MANUAL, CTN, STAPLER</td>
<td>101896290</td>
<td>ALL</td>
</tr>
<tr>
<td>STAPLES, CTN, C58 KIHLBERG STICK 5/8</td>
<td>101896291</td>
<td>ALL</td>
</tr>
</tbody>
</table>

**Problem Definition**

DCST UN classification has changed from UN0349 to UN0444 and a new EX number, EX2016020739 supersedes the current EX number on all packages holding DCST explosives.

This classification is only valid for JRC™ Drill Collar Severing Tool kits consisting of cutter pellets and cutter cartridges (with copper liner installed or placed separately within the inner packaging), when packaged as follows:

**Inner Packaging** – Pads, fiberboard with individual die-cut cells such as to maintain minimum 0.9 inch separation distance between cutter pellets and/or cutter cartridges, and of sufficient thickness to completely contain the pellets/cartridges.

**Intermediate Packaging** – Trays, fiberboard, each containing no more than three (3) inner packaging layered with Kim pack between layers, and over packed in a foil bag to form a single intermediate packaging with no more than 0.762 grams Net Explosive Weight. Each Intermediate packaging may contain multiple cutter pellets and a single (1) cutter cartridge which must be placed in the top layer.

**Outer Packaging** - UN 4G fiberboard box, each containing not more than two (2) layered intermediate packaging.

![Figure 1A - DCST Packaging](image-url)
Table 6 – Packing Components

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Flat ) TRAY</td>
<td>101217221</td>
</tr>
<tr>
<td>DESICCANT BAG</td>
<td>101215638</td>
</tr>
<tr>
<td>CUT OUT PAD</td>
<td>Varies by Size</td>
</tr>
<tr>
<td>KIM PACK PAD</td>
<td>102667751</td>
</tr>
<tr>
<td>WARNING PAD</td>
<td>101276057</td>
</tr>
</tbody>
</table>

### Procedure

1. **Rework and Repackaging for:** KIT, DCST, PELT/CRTG, 1.375IN, HMX, 589.2G P/N 101214053 and KIT, DCST, PELLET/CRTG, HNS, 1.375IN, 535.6G P/N 101237459

   - Current Packaging for this Kit is 1 box with 1 tray consisting 28 Pellets and 2 cartridges in 1 layer as shown in **Figure 1** while new packaging shall be 1 box with 2 trays with 14 pellets and 1 cartridge in each tray on 1 layer as shown in **Figure 2**

   ![Figure 1 Old Packaging](image1.png) ![Figure 2 New Packaging](image2.png)

   - Kits P/N 102710870, 102708927 and 102724672 are required

   - Remove pellets from tray, remove old cutout pads and discard.
   - Place a Kim pack pad P/N 102667751 in the tray, place **three** cutout pads P/N 101290900 in tray.
   - Place 14 pellets and 1 cartridge in the first tray as shown in **Figure 2**
   - Cover pellets with one Kim pack pad and a warning pad
   - Build a second tray 101217221 by repeating previous steps.
Two identical trays are used to make the 28 pellets and 2 cartridges for one DCST assembly.

- Each tray is to be packed in its own foil bag P/N 101215637 with a desiccant bag P/N 101215638 in each bag then tape it closed. Push tray to bottom corner and fold over the long length and tape, then the short length and tape again as shown in Figure 3 and Figure 4.

![Figure 3 Tape Long Edge](image)

![Figure 4 Fold in Short end and tape closed](image)

- Label example is shown in Figure 5 – with correct SAP number,
- Use the Sharpie marker to update the batch, work order number, rev, mfg date (as highlighted in Figure 5).
- COPY Batch Number from original bag to Batch # on new label

![Figure 5 Example New Label](image)

- Using clear tape P/N 102718557 to tape one updated label to the top side of each foil bag.
- Place both trays back in the same box.
- Use two staples on each side of center of the box.(Ref: Stapler and Staples on page 3)
- Cover 1.4S label with 1.4D label as shown in Figure 6

![Figure 6 Replacing the labels](image)

- Cover old proper shipping name with brown tape P/N 102718555 included in the kit P/N 102710870 as shown in Figure 6
• Print UN0444, CHARGES AVERY LABEL 8163.docx and place on top of brown tape.

⚠️ **NOTE**

This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label

• Use Sharpie Marker to cross out EX Numbers on Box Labels, **Figure 7** and **Figure 8** show the original and the modified labels respectively

• Print label with EX2016020739_AVERY 8366.docx as shown in **Figure 8**

⚠️ **NOTE**

This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label (New EX Label can cover label as shown in **Figure 8**)

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2. **Rework and Repackaging for:** KIT, DCST, PELT/CRTG, 1.75IN, HMX, P/N 101293167

⚠️ **NOTE**

Current Packaging for this Kit is 1 box with 1 tray consisting 44 Pellets and 2 cartridges in 2 layers of the tray as shown in **Figure 9** and **Figure 10** while new packaging shall be 2 trays with 22 pellets and 1 cartridge each tray as shown in **Figure 11**

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![Figure 9. Bottom Layer of old packaging](image1.png)

![Figure 10. Top Layer of old packaging](image2.png)
Kits P/N 102708927, 102710870 and 102724675 are required

- Remove pellets and both cartridges from the top of the tray, set aside;
  - Remove cutout pads from top tray. Dispose of these cutout pads
  - Remove three additional pellets from bottom of tray, indicated by the red circles in Figure 9, leaving only 22 pellets in that tray.
  - Place one cartridge removed from top of tray to the bottom tray, placing it in the center hole of the cutout pad as shown in Figure 11.

Figure 11- DCST 1.75" with 22 pellets & 1 cartridge

- Get a new tray P/N 101217221; Place a Kim pack pad P/N 102667751 in the tray.
- Place two cutout pads P/N 101290898 in the top tray.
- Place 22 pellets and one cartridge in the tray, same configuration as the bottom tray as shown in Figure 11
- Cover pellets in both trays with a Kim pack and a warning pad on top of the Kim pack.
- Each tray is to be packed into a foil bag P/N 101215637 with a desiccant bag P/N 101215638 in each bag.
- Push tray to bottom corner and fold over the long length and tape, then the short length and tape again as shown in Figure 3 and Figure 4

Both top and bottom trays should be arranged as shown in Figure 11
• Label example for 101293167 is shown in Figure 14
• Use the Sharpie marker to update the batch, work order number, rev, mfg date (as highlighted in Figure 14).
• COPY Batch Number from original bag to Batch # on new label

![Figure 14- Example of the new label](image)

• Using clear tape P/N 102718557 to tape one updated label to the top side of each foil bag.
• Place both trays back in the same box.
• Use two staples on each side of center of the box. (Ref: Stapler and Staples on page 3)
• Cover 1.4S label with 1.4D label as shown in Figure 15

![Figure 15 Replacing the labels](image)

• Cover old proper shipping name with brown tape P/N 102718555 included in the kit P/N 102710870 as shown in Figure 15
• Print UN0444, CHARGES AVERY LABEL 8163.docx and place on top of brown tape.

⚠️ NOTE
This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label

• Use Sharpie Marker to cross out EX Numbers on Box Labels, Figure 16 shows the modified label.
• Print label with EX2016020739 AVERY 8366.docx (word document) as shown in Figure 16

⚠️ NOTE
This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label (New EX Label can cover label as shown in Figure 16)
Figure 16 Cross off old EX number. Relabel

3. **Rework and Repackaging for:** KIT, PELLET/CRTG, 2 IN, HMX, DCST, 1340.4G P/N 101293168 and KIT, DCST, PELLET/CRTG, HNS, 2 IN, 1346.6G P/N 101293234

- **NOTE**
  Current Packaging for this Kit is 2 boxes in an over pack box. One box has 64 pellets and the other box has two cartridges in the same tray while New packaging needs to be 2 trays with one cartridge each in the cartridge box.

- **NOTE**
  The pellet box does not need to be opened.

- **NOTE**
  Kits P/N 102708927, 102710870, 102724673 and 102724676 are required

  - Remove box with the two cartridges, open tray and remove one cartridge.
  - Get a new tray P/N 101217221.
  - Place a Kim pack pad P/N 102667751 in new tray.
  - Place one cutout pad P/N 101290898 in the new tray.
  - Place the cartridge removed from the original tray into the new tray.
  - Cover cartridges in both trays with a Kim pack and a warning pad.
  - Each tray is to be packed into separate foil bags P/N 101215637 with a desiccant bag P/N 101215638 in each bag. Push tray to bottom corner and fold over the long length and tape, then the short length and tape again as shown in Figure 3 and Figure 4.
• Print labels called 101293168 HMX or 101293234 HNS - Cartridge TRAY LABEL.pdf Copy Batch Number from original bag to Batch # on new label as shown in Figure 19 and Figure 20

![Figure 19 Label – Field Rework – 101293234 HNS](image)

![Figure 20 Label – Field Rework – 101293168 HMX](image)

• Using clear tape P/N 102718557 to tape one updated label to the top side of each foil bag.
• Place both trays back in the same box.
• Use two staples on each side of center of the box. (Ref: Stapler and Staples on page 3)
• Cover 1.4S label with 1.4D label as shown in Figure 21

![Figure 21 Replacing the labels](image)

• Cover old proper shipping name with brown tape P/N 102718555 included in the kit P/N 102710870 as shown in Figure 21
• Print UN0444, CHARGES AVERY LABEL 8163.docx and place on top of brown tape.

![NOTE](image)

This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label

![NOTE](image)

This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label (New EX Label can cover label as shown in Figure 22)

• Use Sharpie Marker to cross out EX Numbers on Box Labels, Figure 22 shows the modified label.
• Print label with EX2016020739 AVERY 8366.docx (word document) as shown in Figure 22

![NOTE](image)

This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label (New EX Label can cover label as shown in Figure 22)

• Repeat steps for pellet box.
4. **Rework and Repackaging for:** KIT, PELLET/CART, HMX, 2.625 DCST, 2.355 KG P/N 5.101293152 and KIT, DCST, PELLET/CRTG, 2.625 IN, HNS 2509.2G P/N 101293235

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**NOTE**

Current Packaging for this Kit is 3 boxes in an overpack box. Two boxes have 55 pellets each and the other box has two cartridges in the same tray. New packaging needs to have 2 trays with one cartridge each in the cartridge box.

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**NOTE**

The pellet boxes do not need to be opened.

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**NOTE**

Kits P/N 102708927, 102710870, 102724674 and 102724677 are required.

- Remove box with the two cartridges, open tray and remove one cartridge.
- Get a new Tray P/N 101217221
- Place a Kimpack pad P/N 102667751 in a new tray.
- Place one cutout pads P/N 101278960 in the new tray.
- Place the second cartridge into the prepared tray.
- Cover cartridges of both trays with a Kimpack and a warning pad.
- Each tray is to be packed into a foil bag P/N 101215637 with a desiccant bag P/N 101215638 in each bag. Push tray to bottom corner and fold over the long length and tape, then the short length and tape again as shown in **Figure 3** and **Figure 4**.
• Print labels called 101293152 HMX or 101293235 HNS - Cartridge TRAY LABEL.pdf, use the Sharpie marker to update the batch, work order number, rev, mfg date.

**NOTE**

For EU marking: Do not cover up the barcodes on the upper right of the labels, these will remain as your track and trace barcodes.

• Note Place two trays back in the same cartridge box.
• Use two staples on each side of center of the box. (Ref: Stapler and Staples on page 3)
• Cover 1.4S label with 1.4D label, included in kit 102710870 as shown in Figure 25

![Figure 25 replacing the labels](image)

• Cover old proper shipping name with brown tape 102718555, included in kit 102710870
• Print UN0444, CHARGES AVERY LABEL 8163.docx and place over brown tape as shown in Figure 25
• Repeat all three steps for both pellet boxes.
• Place three boxes back in the over pack box.
• Use two staples on each side of center of the box. (Ref: Stapler and Staples on page 3)
• Repeat the last three steps for the overpack box as shown in Figure 25
• Print UN0444, CHARGES AVERY LABEL 8163.docx and place on top of brown tape.

**NOTE**

This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label

• Use Sharpie Marker to cross out EX Numbers on Box Labels, Figure 26 shows the modified label.
• Print label with EX2016020739 AVERY 8366.docx (word document) as shown in Figure 26

**NOTE**

This can be printed on standard paper and clear tape P/N 102718557 used to attach new EX label (New EX Label can cover label as shown in Figure 16)
The following documents will be updated to reflect the changes by this bulletin and are available from [www.jetresearch.com](http://www.jetresearch.com).

- 1.375 IN DCST HMX P/N 101214053 Regulatory Data Sheet
- 1.375 IN DCST HNS P/N 101237459 Regulatory Data Sheet
- 1.75 IN DCST HMX P/N 101293167 Regulatory Data Sheet
- 1.75 IN DCST HNS P/N 101293207 Regulatory Data Sheet
- 2 IN DCST HMX P/N 101293168 Regulatory Data Sheet
- 2 IN DCST HNS P/N 101293234 Regulatory Data Sheet
- 2.65 IN DCST HMX P/N 101293152 Regulatory Data Sheet
- 2.65 IN DCST HNS P/N 101293235 Regulatory Data Sheet

Applicable Documents

Reference documents available from [www.jetresearch.com](http://www.jetresearch.com)

- Drill Collar Severing Tool Field Loading Procedure
- US DOT 1.4D_EX201620739_second revision_Classification of Explosives

Contacts

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