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</table>
Subject: 124-20 with 5120-20 ferrule

Products affected: 124-20 with 5120-20 ferrule

Technical details: A data entry error on the crimp chart #103 for the -20.

The crimp specification for 124-20 with 5120 ferrule has been corrected to 51.6 mm.

Rationale: Correct crimp specification to prevent the possibility of premature failure.

This change is in effect until further notice.
**Subject:** 156PLUS-12 with 5120-12 ferrule

**Products affected:** 156PLUS-12 and 5120-12

**Technical details:** A data entry error on the crimp chart #173 for the -12.

The crimp specification for 156PLUS-12 with 5120 ferrule has been corrected to 35.1mm.

**Rationale:** Correct crimp specification to prevent the possibility of premature failure.

This change is in effect until further notice.

www.pulsarhydraulics.com
Subject: 151H High temperature 100R5 hose colour substitution

Products affected: 151H – all sizes

Technical details: Our supplier has approved a colour substitution on the 151H 100R5 (FC300) product. The product is the same except that the colour has been substituted to black as there has been a shortage in supply of the blue textile material.

No other substitutions/changes have been made.

Rationale: Supplier determined that a substitution of the colour on the textile cover would minimize the back order of material. PACCAR has approved the SRDC change order as well.

This change is in effect until further notice.
Subject: Crimp Specification Updates

Products affected:

120J ALL SIZES
4200 Series Fittings

Technical details:

Crimp specification changes to 120J-XX Jack Hose

Rationale:

Testing has verified that the jack hose is better suited to be crimped with the 4200 series non-skive fitting

Affected documents:

PULSAR Master Crimp Chart #: 117 Remove chart from collection
PULSAR Master Crimp Chart #: 164 Add chart to collection

PULSAR Crimper Specific Charts:

Crimper Model Chart #

All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.
Subject: Crimp Specification Updates

Products affected:

141 ALL SIZES
4200 Series Fittings
4400 Series Fittings
5000 Series Fittings

Technical details:

Crimp specification changes to 141-XX 100R4 suction hose

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 110 Crimp specification change
PULSAR Master Crimp Chart #: 87 Crimp specification change

PULSAR Crimper Specific Charts:

Crimper Model Crimp specification change

All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

<table>
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<tr>
<th>Product Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>122-12</td>
<td>3/4” 100R2 two braid hydraulic hose</td>
</tr>
<tr>
<td>122A-12</td>
<td>3/4” 100R2 two braid hydraulic hose</td>
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<tr>
<td>4200-12</td>
<td>No skive one piece fittings</td>
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</table>

Technical details:

Crimp specification changes to 122-12 100R2 two braid hydraulic hose

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 84 Crimp specification change

PULSAR Crimper Specific Charts:

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<th>Crimper Model</th>
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<tr>
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All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

124PLUS-08 1/2” 100R12 four spiral hydraulic hose
4400-08 No skive one piece fittings

Technical details:

Crimp specification changes to 124PLUS-08100R12 hydraulic hose

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 151 Crimp specification change

PULSAR Crimper Specific Charts:

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All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

- 156PLUS 100R13/15 four and six spiral hydraulic hose
- 4400 No skive one piece fittings
- 4600 No skive one piece fittings
- 9600 Skive one piece fittings

Technical details:

Crimp specification changes to 156PLUS 100R13/15 four and six spiral hydraulic hoses

Rationale:

Introduction of the 156PLUS four and six spiral high impulse reduced bend radius hoses. With 4400 and 4600 one piece no skive fittings

Affected documents:

- PULSAR Master Crimp Chart #: 160 and 162
- PULSAR Crimper Specific Charts:
  
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  All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

136-12 ¾" 100R13 spiral hydraulic hose
4400-12 Series One-piece fitting

Technical details:

Crimp specification changes to 136-12 100R13

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 92 Crimp specification change
PULSAR Crimper Specific Charts:

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Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

- 151-06  5/16 100R5 Fabric Cover
- 151H-06 5/16 100R5 High-temp Fabric Cover
- 4500-06 Series One-piece Fitting

Technical details:

Crimp specification changes to 151-06 and 151H-06 Fabric cover 100R5

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 95 Crimp specification change

PULSAR Crimper Specific Charts:

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All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

124PLUS 3/8" hydraulic hose
124PLUS 1/2" hydraulic hose
124PLUS 5/8" hydraulic hose
5420 Series Two-piece fitting Skive
5120 Series Two-piece fitting No Skive
4400 Series One-piece fitting No Skive

Technical details:

Addition of crimp specifications to 124PLUS hydraulic hose.

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 150 Crimp specification
PULSAR Master Crimp Chart #: 151 Crimp specification
PULSAR Master Crimp Chart #: 156 Crimp specification
PULSAR Crimper Specific Charts:

Crimper Model Crimp specification

All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

129G  3/8” pressure wash hose

Technical details:

Addition of crimp specifications to 129G pressure wash hose.

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product.

Affected documents:

PULSAR Master Crimp Chart #:  146  Crimp specification

PULSAR Crimper Specific Charts:

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All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

- 157 Stainless Steel Teflon Hose
- 4700 One-piece fitting

Technical details:

Addition of crimp specifications to 157 Stainless Steel Teflon Hose With 4700 One-piece fitting.

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 161 Crimp specification

PULSAR Crimper Specific Charts:

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All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

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<td>4700</td>
<td>One-piece fitting</td>
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Technical details:

Addition of crimp specifications to 172 100R7 Thermoplastic hydraulic hose With 4700 One-piece fitting.

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 157 Crimp specification

PULSAR Crimper Specific Charts:

Crimper Model ____________ Chart #

All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

120J-04 1/4" hydraulic jack hose
120J-06 3/8" hydraulic jack hose
5420 Series Two-piece fitting Skive

Technical details:

Crimp specification changes to 120J-04 and 120J-06 hydraulic jack hose

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 117 Crimp specification change

PULSAR Crimper Specific Charts:

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Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

124-12  ¾” 100R12 spiral hydraulic hose
4400-12 Series One-piece fitting
5120-12 Series Two-piece fitting No Skive

Technical details:

Crimp specification changes to 124-12 100R12

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #:  91   Crimp specification change
                               103   Crimp specification change
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Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

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<tr>
<td>4400-08</td>
<td>Series One-piece fitting</td>
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Technical details:

It is advised to SKIVE the hose 27mm before crimping to ensure that there is no over crimping of the fitting stem due to the robust outer cover on this type of hose product.

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product.

Affected documents:

- PULSAR Master Crimp Chart #: 93 remove
  94 Add Skive
- PULSAR Crimper Specific Charts:
  
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  All Crimper specific charts effected

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.
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<td>122-06</td>
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<tr>
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<td>New CR6 free plating</td>
<td>None</td>
<td>All</td>
<td>13</td>
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</table>
Subject: Crimp Specification Updates

Products affected:

- 141-24 1 1/2" SAE100R4 hydraulic hose
- 5420-24 Two piece crimp ferrule

Technical details:

Finished crimp diameter is amended from 48.0mm to 56.0mm

Rationale:

Reviewing the crimp chart a typing error was detected

Affected documents:

PULSAR Master Crimp Chart #: 110 Rev 00

PULSAR Crimper Specific Charts:

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Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.
Technical Bulletin: 2012-12-12A

Date: December 2012

Subject: Crimp Specification Updates

Products affected:

136-12 3/4" SAE100R13 hydraulic hose
4400-12 3/4" one-piece crimp ferrule

Technical details:

Finished crimp diameter is amended from 35.2mm to 35.7mm

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 92 Rev 01

PULSAR Crimper Specific Charts:

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<td>D165M</td>
<td>92 Rev 01</td>
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<td>D205M</td>
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<td>P32M</td>
<td>92 Rev 01</td>
</tr>
</tbody>
</table>

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Caution required during insertion of 4400 No Skive fitting on 136-12 SAE 100R13-12

Products affected:

4400 No Skive fitting
136-12 100R13-12 Multi Spiral

Technical details:
Care should always be taken to ensure the fitting is inserted completely.

Hoses often flare slightly when cut, depending on the type and condition of cut-off saw blade used. Occasionally this flaring will prevent full insertion past the last tooth inside the crimp ferrule particularly for SAE 100R13-12.

If the fitting cannot be fully inserted to the “Insertion Depth Mark” it is acceptable to trim off some of the rubber cover to allow complete fitting insertion. (See photos).

Rationale:
If the fitting is not completely inserted before crimping, failure of the end fitting will occur when under pressure.

Hose not inserted  Flared cover trimmed away  Hose completely inserted

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

111-20  1-1/4" SAE100R1AT hydraulic hose
5901-20 1-1/4" two-piece skive crimp ferrule

Technical details:

Finished crimp diameter is amended from 47.0 mm to 47.4 mm

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 21 Rev 10

PULSAR Crimper Specific Charts:

<table>
<thead>
<tr>
<th>Crimper Model</th>
<th>Chart #</th>
</tr>
</thead>
<tbody>
<tr>
<td>D205M</td>
<td>21 Rev 10</td>
</tr>
<tr>
<td>P32M</td>
<td>21 Rev 10</td>
</tr>
</tbody>
</table>

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

182-08  1/2" SAE100R8 Thermoplastic hydraulic hose
5508-08 1/2" two-piece Non-skive crimp ferrule

Technical details:

Finished crimp diameter is 22.2mm

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 78REV

PULSAR Crimper Specific Charts:

<table>
<thead>
<tr>
<th>Crimper Model</th>
<th>Chart #</th>
</tr>
</thead>
<tbody>
<tr>
<td>D105M</td>
<td>78REV</td>
</tr>
<tr>
<td>D165M</td>
<td>78REV</td>
</tr>
<tr>
<td>D205M</td>
<td>78REV</td>
</tr>
<tr>
<td>P32M</td>
<td>78REV</td>
</tr>
<tr>
<td>P20</td>
<td>78REV</td>
</tr>
</tbody>
</table>

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.
Subject: Crimp Specification Updates

Products affected:

111-20 1-1/4" SAE100R1AT hydraulic hose
5901-20 1-1/4" two-piece skive crimp ferrule

Technical details:

Finished crimp diameter is amended from 47.4 mm to 47.0 mm

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 21 Rev 10

PULSAR Crimper Specific Charts:

<table>
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<th>Crimper Model</th>
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<td>D205M</td>
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</tr>
</tbody>
</table>

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: Crimp Specification Updates

Products affected:

124-20  1 1/4" SAE100R12 hydraulic hose
9400-20  1 1/4" one-piece crimp ferrule

Technical details:

Finished crimp diameter is amended from 52.4mm to 51.5mm

Rationale:

Ongoing testing allows optimization of crimp dimensions for this product

Affected documents:

PULSAR Master Crimp Chart #: 42 Rev 07

PULSAR Crimper Specific Charts:

<table>
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<tr>
<th>Crimper Model</th>
<th>Chart #</th>
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<tr>
<td>D205M</td>
<td>42 Rev 07</td>
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<tr>
<td>P32M</td>
<td>42 Rev 07</td>
</tr>
</tbody>
</table>

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: SAE100R15 Fitting Recommendation Update

Products affected:

- 156-20  1-1/4" SAE100R15 hydraulic hose
- 9600-20 1-1/4" one-piece skive crimp ferrule
- 156-24  1-1/2" SAE100R15 hydraulic hose
- 9600-24 1-1/2" one-piece skive crimp ferrule

Technical details:

Use of 9600 fitting with SAE100R15 hydraulic hose in sizes above 1” is no longer recommended.

Rationale:

Pulsar Interlock 8600 fittings provide increased impulse life, and a mechanical interlock mechanism to resist fitting blow-off type failures. Since application environments vary widely, and cannot be controlled by PULSAR, only Interlock fittings are approved for extreme applications.

Affected documents:

- PULSAR Master Crimp Chart #: 64 Rev 05/05
- PULSAR Crimper Specific Charts:
  - D205M  64 Rev 05/05
  - P32M  64 Rev 05/05

Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
Subject: SAE100R13 Fitting Recommendation Update

Products affected:

136-20  1-1/4" SAE100R13 hydraulic hose
9600-20 1-1/4" one-piece skive crimp ferrule

136-24  1-1/2" SAE100R13 hydraulic hose
9600-24 1-1/2" one-piece skive crimp ferrule

136-32  2" SAE100R13 hydraulic hose
9600-32 2" one-piece skive crimp ferrule

Technical details:

Use of 9600 fitting with SAE100R13 hydraulic hose in sizes above 1” is no longer recommended.

Rationale:

Pulsar Interlock 8600 fittings provide increased impulse life, and a mechanical interlock mechanism to resist fitting blow-off type failures. Since application environments vary widely, and cannot be controlled by PULSAR, only Interlock fittings are approved for extreme applications.

Affected documents:

PULSAR Master Crimp Chart #: 63 Rev 05/05

PULSAR Crimper Specific Charts:

<table>
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<tr>
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<td>D205M</td>
<td>63 Rev 05/05</td>
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<tr>
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</tr>
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Note: Charts provided for other brands of crimpers may be affected. Please consult the PULSAR website for updated charts.

www.pulsarhydraulics.com
May, 2007

Re: Pulsar Crimping Diameter Revisions-2007

Please download the following new crimp charts for yourself, any of your branch operations or any customers who may be crimping these affected coupling/hose combinations. Crimp charts can be viewed and downloaded from [www.pulsarhydraulics.com](http://www.pulsarhydraulics.com). If you see your crimper model listed on the website, download the chart number indicated below for your crimper model, if you crimp the coupling/hose combinations shown below. If your crimper model is not listed, download the chart number required from “Complete Charts (Not Crimper Specific)”. The chart number is shown on each website chart near the top right corner.

<table>
<thead>
<tr>
<th>Affected Coupling</th>
<th>Crimp Change with Hose Style</th>
<th>NEW Crimp Diameter</th>
<th>OLD Crimp Diameter</th>
<th>Download Chart #</th>
</tr>
</thead>
<tbody>
<tr>
<td>5502-06</td>
<td>111-06</td>
<td>obsolete</td>
<td>19.6mm</td>
<td>17</td>
</tr>
<tr>
<td>5502-06</td>
<td>112-06</td>
<td>obsolete</td>
<td>19.5mm</td>
<td>37</td>
</tr>
<tr>
<td>5502-06</td>
<td>122-06</td>
<td>obsolete</td>
<td>20.5mm</td>
<td>18</td>
</tr>
<tr>
<td>5512-06</td>
<td>111-06</td>
<td>20.6mm</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>5512-06</td>
<td>112-06</td>
<td>20.5mm</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>5512-06</td>
<td>122-06</td>
<td>21.8mm</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

Please accept our apology for any inconvenience this may cause you.
January, 2007

Re: Pulsar Crimping Diameter Revisions-2007

Please download the following new crimp charts for yourself, any of your branch operations or any customers who may be crimping these affected coupling/hose combinations. Crimp charts can be viewed and downloaded from [www.pulsarhydraulics.com](http://www.pulsarhydraulics.com). If you see your crimper model listed on the website, download the chart number indicated below for your crimper model, if you crimp the coupling/hose combinations shown below. If your crimper model is not listed, download the chart number required from “Complete Charts (Not Crimper Specific)” The chart number is shown on each website chart near the top right corner.

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</tr>
</thead>
<tbody>
<tr>
<td>5904-04</td>
<td>111-04</td>
<td>17.5 mm</td>
<td>17.1 mm</td>
<td>Chart 21</td>
</tr>
<tr>
<td>5904-06</td>
<td>124/115-06</td>
<td>REPLACE FERRULE WITH 5905-06</td>
<td>Chart 23/24</td>
<td></td>
</tr>
<tr>
<td>5904-08</td>
<td>124/115-08</td>
<td>REPLACE FERRULE WITH 5905-08</td>
<td>Chart 23/24</td>
<td></td>
</tr>
<tr>
<td>5904-32</td>
<td>124-32</td>
<td>75.0 mm</td>
<td>75.3 mm</td>
<td>Chart 23</td>
</tr>
<tr>
<td>5504-16</td>
<td>124-16</td>
<td>43.9 mm</td>
<td>44.2 mm</td>
<td>Chart 32</td>
</tr>
<tr>
<td>9400-16</td>
<td>124-16</td>
<td>(All 9400 series one-piece couplings for 1” hose)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5508-XX*</td>
<td>172/182-XX*</td>
<td>REPLACE FERRULES WITH 5507-XX*</td>
<td>Chart 77-78</td>
<td></td>
</tr>
<tr>
<td>(*All sizes)</td>
<td>(*All sizes &amp; variations of 172 and 182 hose, including twin and non-conductive)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please accept our apology for any inconvenience this may cause you.
Re: New Hydraulic SUPERTUFF Coupling Plating

You may have noticed that the color of most Pulsar crimp couplings has been changing from a “gold” appearance to “silver”.

The “gold” appearance indicates the plating contains Cr6 hexavalent chromium. The European Communities Commission (EU) has classified Cr6 as an environmentally hazardous substance, and consequently, restrictions on its use are increasing. North American transportation manufacturers are driving the change to **Cr6 chromium6 free plating** to ensure the European market remains open to their products and to conform to global standards.

The new SUPERTUFF plating is **Cr6 chromium6 free** and offers improved corrosion protection, up to 400 hours of red rust corrosion protection when subjected to rigorous SAE J516 and ASTM B-117 salt spray conditions. Couplings with the new plating require no change in assembly procedures or assembly torque values.

The Cr6 free SUPERTUFF Plating is an example of Pulsar’s commitment to be a leader in the supply of products designed and developed to achieve long service life and reliability.