

## **POWERTRAINSAVERS<sup>®</sup>**

### **Marine Applications**

#### **Parts Catalogue**

Selection, Operation & Procedure

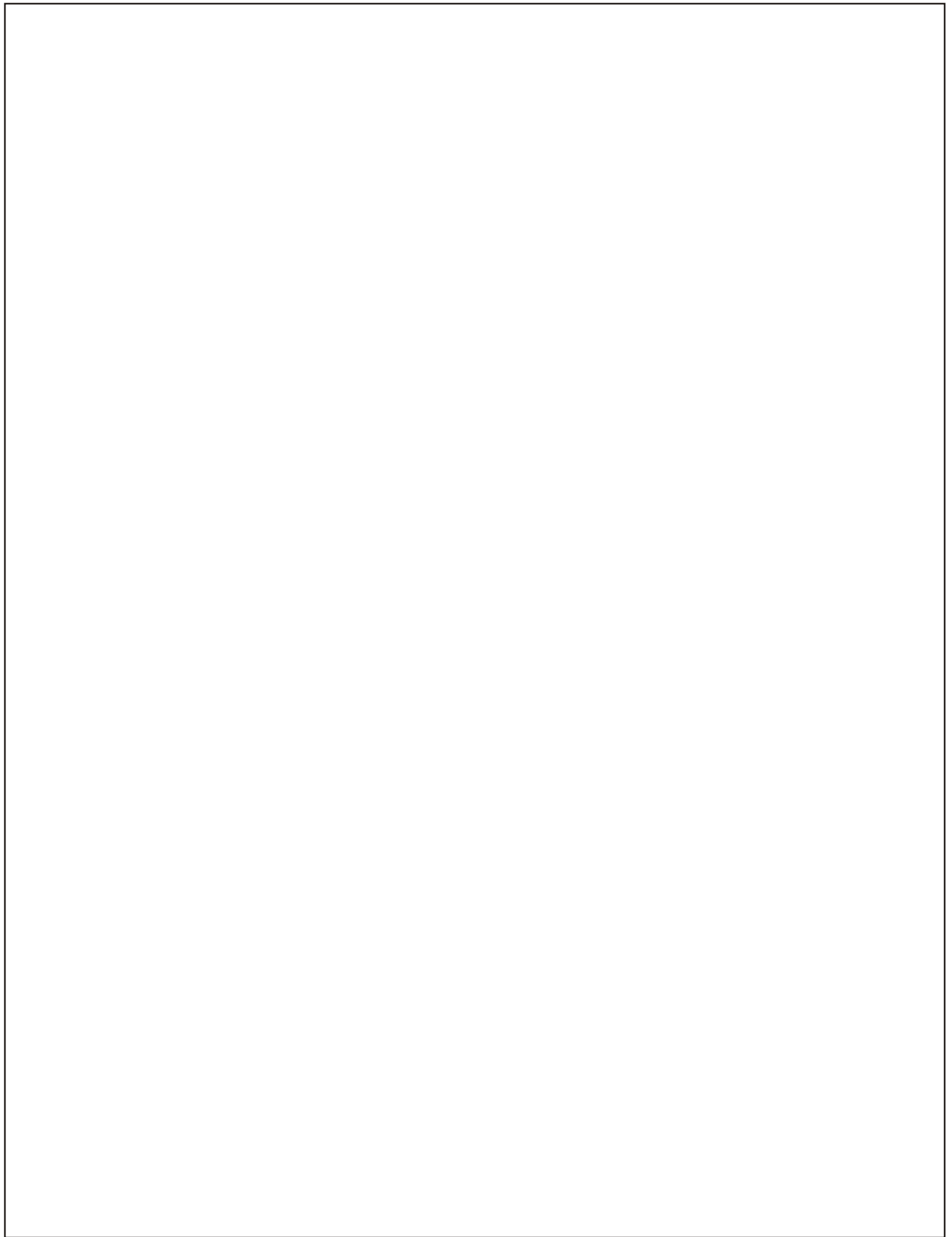


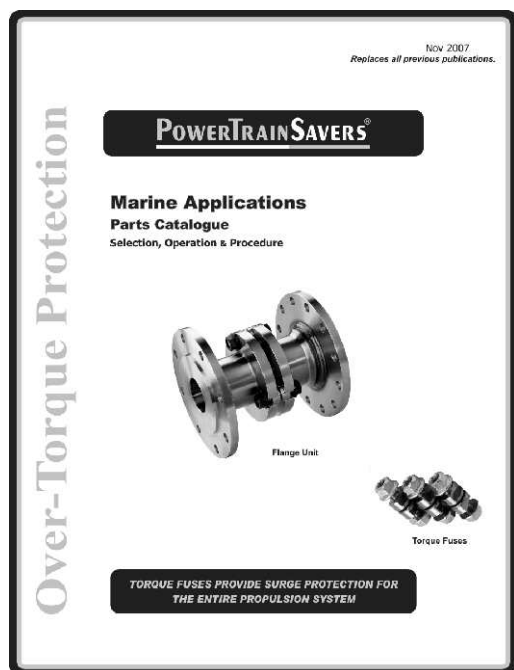
Flange Unit



Torque Fuses

**TORQUE FUSES PROVIDE SURGE PROTECTION FOR  
THE ENTIRE PROPULSION SYSTEM**





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### SEE HOW IT WORKS

Demonstrational Video is  
Available on our website:  
[www.powertrainsavers.com](http://www.powertrainsavers.com)

### SAFETY PRECAUTIONS

- Torque Fuses must be installed with the equipment shut off. ( See Page 2 )
- Torque Fuses must be torqued down to the specifications listed in this catalogue. ( See Page 2 )

For makes & models not listed in this catalogue,  
please contact PowerTrainSavers.

### CONTACT INFORMATION

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PowerTrainSaver®      Torque Fuses®  
US PAT. #5651629 / #6764404      CAN PAT. #2174259 / #2252178

# Torque Fuse® Ft/lb Ratings & Part Numbers

From 2,000 - 45,000 Ft/Lbs

All Torque Fuses are Engineered, Tensile Tested, Weight Rated, Accurate and Durable.  
They are stamped with a letter or number on one end to identify the force in which they shear.

Torque Fuses Come In Sets of 3



Torque Fuse Part #	ID Number	Torque Fuse Part #	ID Number	Torque Fuse Part #	ID Number
<b>0020</b>	<b>0</b> 2000 ft/lbs	<b>0045</b>	<b>5</b> 4500 ft/lbs	<b>0070</b>	<b>10</b> 7000 ft/lbs
<b>0025</b>	<b>1</b> 2500 ft/lbs	<b>0050</b>	<b>6</b> 5000 ft/lbs	<b>0075</b>	<b>11</b> 7500 ft/lbs
<b>0030</b>	<b>2</b> 3000 ft/lbs	<b>0055</b>	<b>7</b> 5500 ft/lbs	<b>0080</b>	<b>12</b> 8000 ft/lbs
<b>0035</b>	<b>3</b> 3500 ft/lbs	<b>0060</b>	<b>8</b> 6000 ft/lbs	<b>0085</b>	<b>13</b> 8500 ft/lbs
<b>0040</b>	<b>4</b> 4000 ft/lbs	<b>0065</b>	<b>9</b> 6500 ft/lbs		

Torque Fuses Come In Sets Of 3



Torque Fuse Part #	ID Letter	Torque Fuse Part #	ID Letter	Torque Fuse Part #	ID Letter
<b>1005</b>	<b>F</b> 5500 ft/lbs	<b>1012</b>	<b>M</b> 12500 ft/lbs	<b>1019</b>	<b>T</b> 19500 ft/lbs
<b>1006</b>	<b>G</b> 6500 ft/lbs	<b>1013</b>	<b>N</b> 13500 ft/lbs	<b>1020</b>	<b>U</b> 20500 ft/lbs
<b>1007</b>	<b>H</b> 7500 ft/lbs	<b>1014</b>	<b>O</b> 14500 ft/lbs	<b>1021</b>	<b>V</b> 21500 ft/lbs
<b>1008</b>	<b>I</b> 8500 ft/lbs	<b>1015</b>	<b>P</b> 15500 ft/lbs	<b>1022</b>	<b>W</b> 22500 ft/lbs
<b>1009</b>	<b>J</b> 9500 ft/lbs	<b>1016</b>	<b>Q</b> 16500 ft/lbs	<b>1023</b>	<b>X</b> 23500 ft/lbs
<b>1010</b>	<b>K</b> 10500 ft/lbs	<b>1017</b>	<b>R</b> 17500 ft/lbs	<b>1024</b>	<b>Y</b> 24500 ft/lbs
<b>1011</b>	<b>L</b> 11500 ft/lbs	<b>1018</b>	<b>S</b> 18500 ft/lbs	<b>1025</b>	<b>Z</b> 25500 ft/lbs

Torque Fuses Come In Sets Of 3



Torque Fuse Part #	ID Letter	Torque Fuse Part #	ID Letter	Torque Fuse Part #	ID Letter
<b>4025</b>	<b>4F</b> 25000 ft/lbs	<b>4032</b>	<b>4M</b> 32000 ft/lbs	<b>4039</b>	<b>4T</b> 39000 ft/lbs
<b>4026</b>	<b>4G</b> 26000 ft/lbs	<b>4033</b>	<b>4N</b> 33000 ft/lbs	<b>4040</b>	<b>4U</b> 40000 ft/lbs
<b>4027</b>	<b>4H</b> 27000 ft/lbs	<b>4034</b>	<b>4O</b> 34000 ft/lbs	<b>4041</b>	<b>4V</b> 41000 ft/lbs
<b>4028</b>	<b>4I</b> 28000 ft/lbs	<b>4035</b>	<b>4P</b> 35000 ft/lbs	<b>4042</b>	<b>4W</b> 42000 ft/lbs
<b>4029</b>	<b>4J</b> 29000 ft/lbs	<b>4036</b>	<b>4Q</b> 36000 ft/lbs	<b>4043</b>	<b>4X</b> 43000 ft/lbs
<b>4030</b>	<b>4K</b> 30000 ft/lbs	<b>4037</b>	<b>4R</b> 37000 ft/lbs	<b>4044</b>	<b>4Y</b> 44000 ft/lbs
<b>4031</b>	<b>4L</b> 31000 ft/lbs	<b>4038</b>	<b>4S</b> 38000 ft/lbs	<b>4045</b>	<b>4Z</b> 45000 ft/lbs

## Torque Fuse® Installation

### **CAUTION!**

Failure to follow the instructions below could result in premature Torque Fuse breakage.

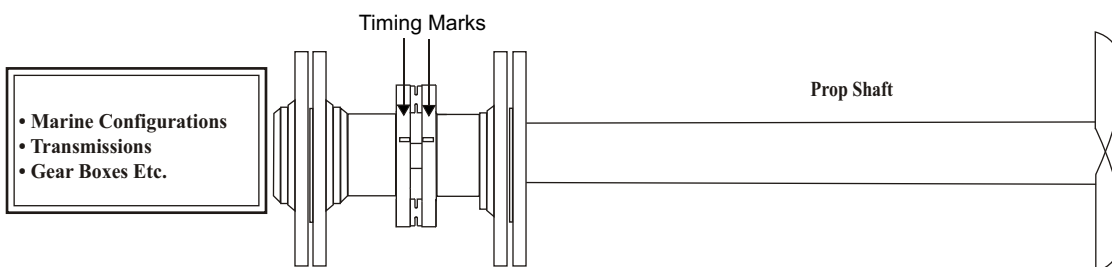
Be sure the equipment is shut down and not turning before removing or installing Torque Fuses.

Then with equipment shut down, loosen nuts on each of the Torque Fuses until they clear the recess in which they sit; remove the broken torque fuses from the slots.

Line up timing marks on the Power Train Saver flanges. Install torque fuses one at a time. Tighten the back end nuts only as you are installing. After all three torque fuses are in place, tighten the front end nuts. Then all torque fuses must be torqued down to 220 ft/lbs. See complete installation instruction diagram below.

1.

Turn the propshaft to **Line up the timing marks on the Power Train Saver flanges.**



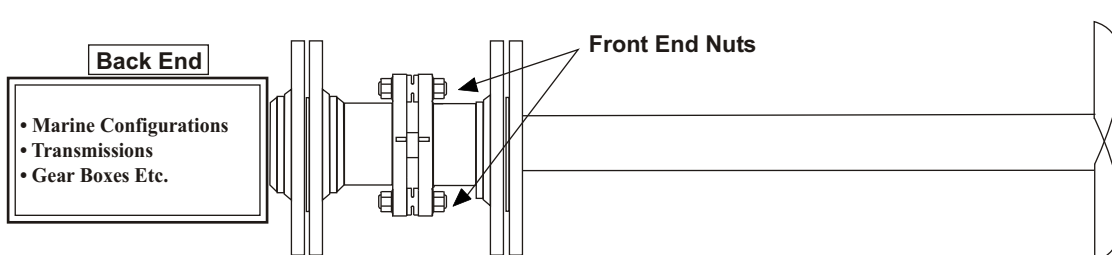
2.

Install torque fuses one at a time. **Tighten the back end nuts only as you go.**



3.

Tighten the front end nuts. **Then torque down all six fuse nuts to 220 ft/lbs.**



All Torque Fuses are Tensile Tested, Weight Rated, Durable & Accurate  
They are stamped on one end with a letter or number to identify the force in which they shear.



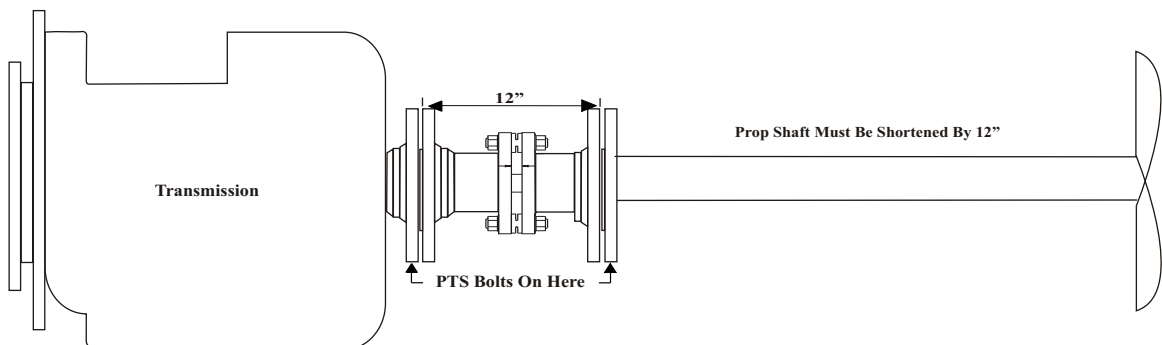
# Twin Disc® Continuous Duty Transmissions

For model numbers not listed  
Contact 403-654-2800



Transmission Model#	Output Flange Diameter	Bolt Pattern Diameter	Bolt Hole Diameter	Power Train Savers Part#	Torque Fuse Part#
MG-5065 SC & A	184.15 mm	152.40 mm	19.45 mm - 6	MR184J	0025 "1"
MG-5075 SC & A	184.15 mm	152.40 mm	19.45 mm - 6	MR184J	0025 "1"
MG-5085 SC & A	184.15 mm	152.40 mm	19.45 mm - 6	MR184J	0025 "1"
MG-5082 SC & A	184.15 mm	152.40 mm	19.45 mm - 6	MR184J	0035 "3"
MG-509	184.15 mm	152.40 mm	19.45 mm - 6	MR184J	* 0025 "1" ** 0035 "3"
MG-5091 SC	184.15 mm	152.40 mm	19.45 mm - 6	MR184J	0035 "3"
MG-5091 DC	266.70 mm	222.25 mm	26.19 mm - 8	MR266J	0055 "7"
MG-5090 A	184.15 mm	152.40 mm	19.45 mm - 6	MR184J	0030 "2"
MG-5114 SC	228.60 mm	190.50 mm	22.62 mm - 8	MR228J	0055 "7"
MG-5114 SC-HD	228.60 mm	190.50 mm	22.62 mm - 8	MR228J	0055 "7"
MG-5114 DC	266.70 mm	222.25 mm	26.19 mm - 8	MR266J	0065 "9"
MG-5114 A	228.60 mm	190.50 mm	22.62 mm - 8	MR228J	0055 "7"
MG-514C SC	266.70 mm	222.25 mm	26.19 mm - 8	MR266J	0055 "7"
MG-514C DC	279.40 mm	241.30 mm	26.19 mm - 8	MR279L	1007 "H"
MG-5135 SC	228.60 mm	190.50 mm	22.62 mm - 8	MR228J	0055 "7"
MG-5135 A	228.60 mm	190.50 mm	22.62 mm - 8	MR228J	0055 "7"
MG-516 DC	279.40 mm	228.60 mm	26.19 mm - 8	MR279K	1010 "K"
MG-5170 DC	279.40 mm	228.60 mm	26.19 mm - 8	MR279K	1013 "N"
MG-520-IHP	342.90 mm	292.10 mm	26.19 mm - 12	MR343J	1018 "S"
MG-5202 SC	279.40 mm	228.60 mm	24.50 mm - 8	MR279J	1008 "I"
MG-5222 DC	342.90 mm	292.10 mm	24.50 mm - 12	MR343J	1017 "R"
MG-5203 SC	279.40 mm	228.60 mm	24.50 mm - 8	MR279J	1008 "I"
MG-5204 SC	279.40 mm	228.60 mm	24.50 mm - 8	MR279J	1008 "I"
MG-5301 DC	374.00 mm	325.00 mm	24.50 mm - 14	MR374J	1020 "U"
MG-540	355.60 mm	304.80 mm	26.92 mm - 12	MR355J	*** 1013 "N" **** 1022 "W"
MG-5600	465.00 mm	400.00 mm	30.50 mm - 18	MR465J	4035 "4P"
MG-5600 DR	465.00 mm	400.00 mm	30.50 mm - 18	MR465J	4044 "4Y"
MG-6557 SC	208.00 mm	178.00 mm	18.00 mm - 12	MR208J	1008 "I"
MG-6557 DC	260.00 mm	225.00 mm	20.20 mm - 15	MR260L	1011 "L"
MG-6557 A	208.00 mm	178.00 mm	18.00 mm - 12	MR208J	0085 "I3"
MG-6600 DC	320.00 mm	275.00 mm	24.20 mm - 16	MR320J	1013 "N"
MG-6619 SC	247.00 mm	210.00 mm	20.20 mm - 14	MR247J	1009 "J"
MG-6619 A	247.00 mm	210.00 mm	20.20 mm - 14	MR247J	1009 "J"
MG-6848 SC	374.00 mm	325.00 mm	24.50 mm - 12	MR374J	1016 "Q"

- \* For gear ratios 1.45 – 3.39
- \*\* For gear ratios 3.83 – 4.95
- \*\*\* For gear ratios 1.71 – 3.91
- \*\*\*\* For gear ratios 4.60 – 7.47

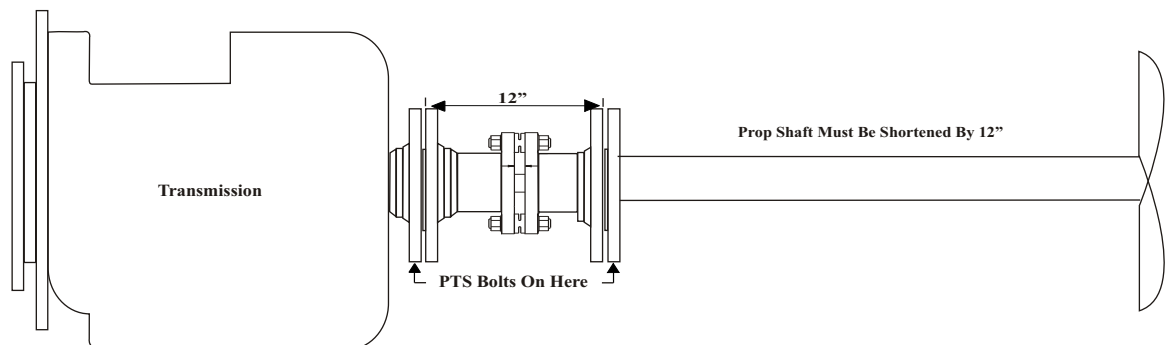


# Zf Marine® Continuous Duty Transmissions

For model numbers not listed  
Contact 403-654-2800



Transmission Model#	Output Flange Diameter	Bolt Pattern Diameter	Bolt Hole Diameter	Power Train Savers Part#	Torque Fuse Part#
ZF 304 A	184 mm	152 mm	16.30 mm - 8	MR184L	0025 "1"
ZF 305	155 mm	125 mm	16.20 mm - 10	MR155J	0025 "1"
ZF 305 A	155 mm	125 mm	16.20 mm - 10	MR155J	0025 "1"
ZF 311	205 mm	170 mm	18.30 mm - 10	MR205J	0030 "2"
ZF 311 A	184 mm	152 mm	16.30 mm - 8	MR184L	0025 "1"
ZF W320	225 mm	196 mm	17.00 mm - 8	MR225J	0050 "6"
ZF 325-1	170 mm	140 mm	16.20 mm - 12	MR170J	0035 "3"
ZF 325-1 A	170 mm	140 mm	16.20 mm - 12	MR170J	0050 "6"
ZF W325	225 mm	196 mm	17.00 mm - 8	MR225J	0050 "6"
ZF 350	205 mm	170 mm	18.30 mm - 10	MR205J	0040 "4"
ZF 350 A & V	205 mm	170 mm	18.30 mm - 10	MR205J	0040 "4"
ZF W350 NR	260 mm	218 mm	20.30 mm - 10	MR260J	0085 "13"
ZF 500 A	205 mm	170 mm	18.30 mm - 10	MR205J	0045 "5"
ZF 550	205 mm	170 mm	18.30 mm - 10	MR205J	0050 "6"
ZF 550 A & V	205 mm	170 mm	18.30 mm - 10	MR205J	0045 "5"
ZF W650	279 mm	229 mm	24.20 mm - 8	MR279J	1010 "K"
ZF 665	205 mm	170 mm	18.30 mm - 10	MR205J	0055 "7"
ZF 665 A & V	205 mm	170 mm	18.30 mm - 10	MR205J	0055 "7"
ZF 2000	185 mm	156 mm	18.30 mm - 10	MR185J	0065 "9"
ZF 2000 A & V	185 mm	156 mm	18.30 mm - 10	MR185J	0055 "7"
ZF 2050	185 mm	156 mm	18.30 mm - 10	MR185J	0065 "9"
ZF 2050 A & V	185 mm	156 mm	18.30 mm - 10	MR185J	0065 "9"
ZF 2150	185 mm	156 mm	18.30 mm - 10	MR185J	0065 "9"
ZF 2150 A & V	185 mm	156 mm	18.30 mm - 10	MR185J	0065 "9"
ZF 2200	285 mm	245 mm	20.20 mm - 12	MR285J	1007 "H"
ZF 2250	285 mm	245 mm	20.20 mm - 12	MR285J	1008 "I"
ZF 2300	285 mm	245 mm	20.20 mm - 12	MR285J	1009 "J"
ZF 2350	285 mm	245 mm	20.20 mm - 12	MR285J	1010 "K"
ZF 2500	225 mm	190 mm	20.20 mm - 15	MR225L	0075 "11"
ZF W2700	285 mm	245 mm	20.20 mm - 12	MR285J	1012 "M"
ZF W3200	320 mm	270 mm	27.50 mm - 10	MR320L	1015 "P"
ZF W3300	320 mm	270 mm	27.50 mm - 10	MR320L	1013 "N"
ZF W3450	320 mm	270 mm	27.50 mm - 10	MR320L	1015 "P"
ZF W3700	320 mm	270 mm	27.50 mm - 10	MR320L	1016 "Q"
ZF W3900	343 mm	292 mm	24.50 mm - 12	MR343J	1017 "R"
ZF W4400	343 mm	292 mm	24.50 mm - 12	MR343J	1019 "T"
ZF 4540	280 mm	245 mm	22.20 mm - 16	MR280J	1012 "M"
ZF 4600	280 mm	245 mm	22.20 mm - 16	MR280J	1014 "O"
ZF W4610	390 mm	345 mm	24.20 mm - 12	MR390J	4028 "4I"
ZF 4650	280 mm	245 mm	22.20 mm - 16	MR280J	1015 "P"
ZF W5200	390 mm	336 mm	31.00 mm - 10	MR390J	1019 "T"
ZF W5700	350 mm	300 mm	27.50 mm - 8	MR350J	1016 "P"
ZF W6300	390 mm	336 mm	31.00 mm - 10	MR390J	1023 "X"
ZF W7000	390 mm	336 mm	31.00 mm - 10	MR390J	1024 "Y"



## Flange Sizes And Specifications

PTS Part #	Flange Dia.	Bolt Circle	Bolt Holes	Locater Dia.	PTS Style
MR155J	155 mm	125 mm	16.20 mm - 10	100.00 mm	6" – 3 fuse
MR170J	170 mm	140 mm	16.20 mm - 12	115.00 mm	6" – 3 fuse
MR184J	184 mm	152 mm	19.45 mm - 6	95.25 mm	6" – 3 fuse
MR184L	184 mm	152 mm	16.30 mm - 8	95.30 mm	6" – 3 fuse
MR185J	185 mm	156 mm	18.30 mm - 10	120.00 mm	6" – 3 fuse
MR205J	205 mm	170 mm	18.30 mm - 10	140.00 mm	6" – 3 fuse
MR208J	208 mm	178 mm	18.00 mm - 12	140.00 mm	6" – 3 fuse
MR225J	225 mm	196 mm	17.00 mm - 8	140.00 mm	6" – 3 fuse
MR225L	225 mm	190 mm	20.20 mm - 15	145.00 mm	6" – 3 fuse
MR228J	228 mm	190 mm	22.62 mm - 6	152.40 mm	6" – 3 fuse
MR247J	247 mm	210 mm	20.20 mm - 14	175.00 mm	8" – 3 fuse
MR260J	260 mm	218 mm	20.30 mm - 10	140.00 mm	6" – 3 fuse
MR260L	260 mm	225 mm	20.20 mm - 15	180.00 mm	8" – 3 fuse
MR266J	266 mm	222 mm	26.19 mm - 8	127.00 mm	6" – 3 fuse
MR279J	279 mm	229 mm	24.20 mm - 8	152.00 mm	8" – 3 fuse
MR279K	279 mm	229 mm	26.19 mm - 8	152.00 mm	8" – 3 fuse
MR279L	279 mm	241 mm	26.19 mm - 8	152.30 mm	8" – 3 fuse
MR280J	280 mm	245 mm	22.20 mm - 16	175.00 mm	8" – 3 fuse
MR285J	285 mm	245 mm	20.20 mm - 12	175.00 mm	8" – 3 fuse
MR320J	320 mm	275 mm	24.20 mm - 16	220.00 mm	8" – 3 fuse
MR320L	320 mm	270 mm	27.50 mm - 10	175.00 mm	8" – 3 fuse
MR343J	343 mm	292 mm	24.50 mm - 12	177.70 mm	8" – 3 fuse
MR350J	350 mm	300 mm	27.50 mm - 8	240.00 mm	8" – 3 fuse
MR355J	355 mm	305 mm	26.92 mm - 12	203.20 mm	8" – 3 fuse
MR374J	374 mm	325 mm	24.50 mm - 12	200.06 mm	8" – 3 fuse
MR390J	390 mm	336 mm	31.00 mm - 10	250.00 mm	10" – 3 fuse
MR465J	465 mm	400 mm	30.50 mm - 18		10" – 3 fuse

Flanges for the 6" – 3 fuse savers range from 155mm to 266mm

Flanges for the 8" – 3 fuse savers range from 228mm to 374mm

Flanges for the 10" – 3 fuse savers range from 390mm to 465mm

All Power Train Savers marine units are 12" flange face to flange face





## Torque Fuse Troubleshooting

(A) Shows a normal shear pattern.

(B) Shows what occurs when drive shaft has a vibration caused by:

1. Improper installation of Power Train Saver  
(See Installation Instructions Page 4 in Parts Catalogue)
2. Torque Fuses not properly torqued down  
(Torque Fuses must be torqued down to 220 Ft/Lbs)

### (A) Normal Shear Pattern

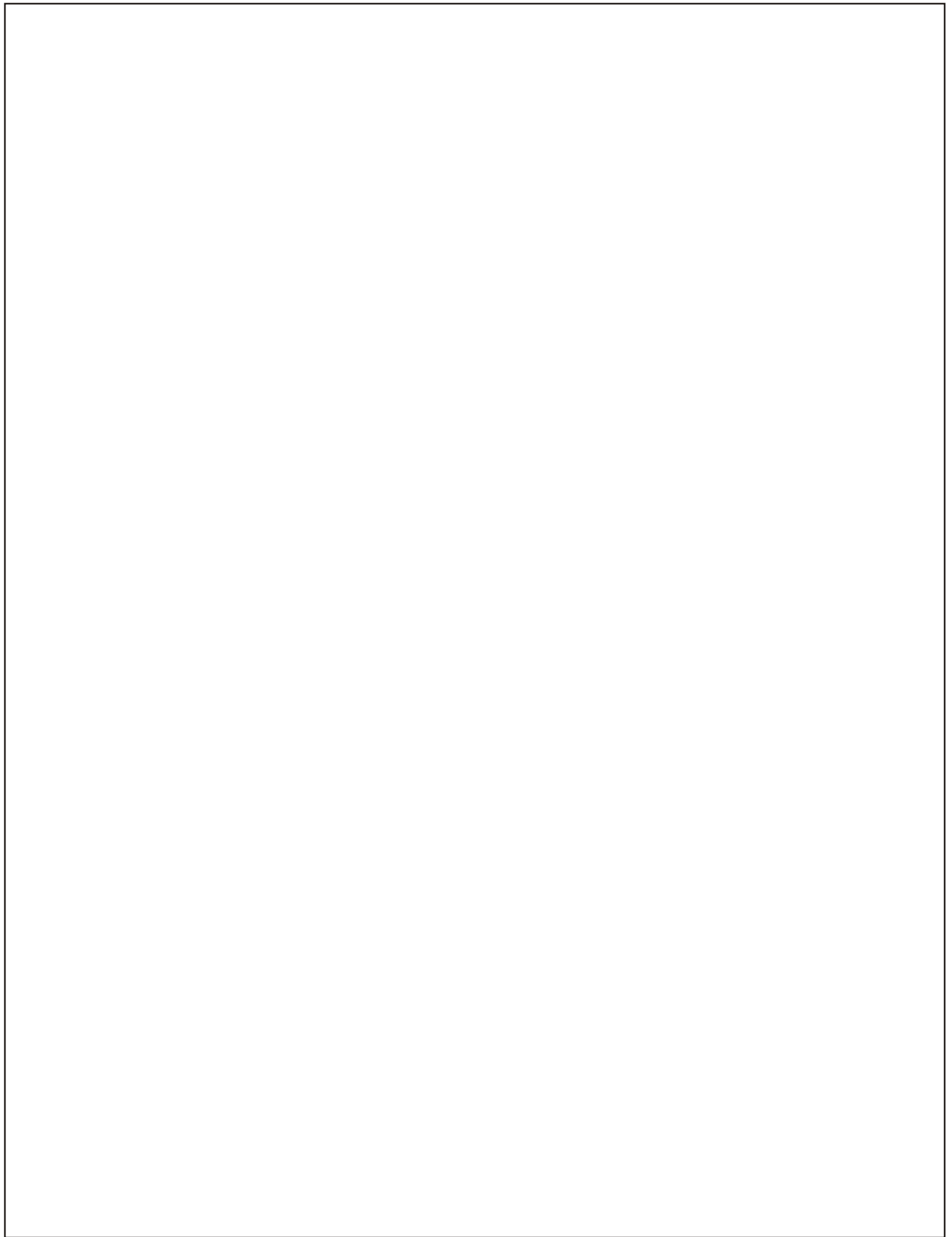


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### (B) Vibration Shear Pattern



## Notes



## Warranty

### General

Power Train Savers (seller) warrants to the original end user that the Power Train Saver unit is free from defects in materials and workmanship for a period of one year from the date of purchase.

This limited warranty is in lieu of any other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose, or otherwise, and of any other obligations or liability on seller's part. This limited warranty does not cover non-defect damage, or damage caused by improper power train saver or torque fuse installation, or on worn or damaged drive trains, operations, or care (including but not limited to) abuse, misuse, or any alterations to this product.

Under no circumstances shall seller be liable for consequential, incidental, or special damages arising in connection with the use, or inability to use this product. Power Train Savers cannot be held responsible if for any reason the drive-train of the vehicle on which the Power Train Saver is installed is damaged. In no event shall seller's liability for breach of warranty, breach of contract, negligence or strict liability exceed the cost of the product covered hereby. No person is authorized to assume for us any other liability in connection with the sale or operation of this product.

The proper operation of this product is dependent on your compliance with the installation instructions provided. We recommend that you have a qualified drive-line shop preform the installation.

### Procedure

If, during the limited warranty period, it appears as though this product contains a defect which is covered by this limited warranty, call our main office at 403-654-2800. Please have the name of the dealer that you purchased the Power Train Saver from as well as proof of purchase containing date of purchase. You will be advised of shipping details, if required. Parts that are confirmed by the seller to be defective and covered by this limited warranty will be repaired or replaced at the seller's sole option and returned at no cost to you.

**POWERTRAINSAVERS**

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PH: (403) 654-2800 FAX: (403) 654-2811

[www.powertrainsavers.com](http://www.powertrainsavers.com)