



2/24/2021

# SKI-DOO 2022-1 High Altitude and Sea Level Specifications\_138460\_SER11Y022S05\_en

Product: **Ski-Doo**

Bulletin type: **Service**

Bulletin no: **2022-1** (mbs2022-001 en ML)

Revision no:

Revision date:

Campaign no.:

Publication date: **February 2021**

Subject: **High Altitude / Sea Level Specifications**

| YEAR | MODEL       |
|------|-------------|
| 2022 | All Ski-Doo |

## GENERAL INFORMATION

### Previous Model Year Vehicles

This bulletin supplies all the information REQUIRED TO MODIFY current year vehicles for HIGH ALTITUDE AND/OR SEA LEVEL riding.

| Model Year | Latest revision of<br>Bulletin No. |
|------------|------------------------------------|
| 2022       | 2022-1                             |
| 2021       | 2021-1                             |
| 2020       | 2020-1                             |
| 2019       | 2019-2                             |
| 2018       | 2018-5                             |

**NOTE:** Throughout this entire document, shaded areas give factory settings (that could apply through different altitudes) while N/A stands for “not applicable”.

**NOTICE** The following modifications and adjustments apply for high altitude operation as well as sea level operation.

PARTS AND LABOR COST ARE NOT COVERED  
BY BRP LIMITED WARRANTY.

## Table Format

The shaded portions of the table indicate factory settings.

| <b>ALTITUDE</b>      |                        |
|----------------------|------------------------|
| Parts to be modified | Recommended Adjustment |

## Sea Level Calibration Kit (CAN/USA only)

When the high altitude calibration must be modified to sea level calibration on Freeride™ and Summit™ models (146" and up), the following kit may be used. This kit include all required parts to set-up the vehicle.

| Model                                      | Part number |
|--------------------------------------------|-------------|
| Summit 600R E-TEC                          |             |
| 146" and 154"                              | 860202145   |
| Freeride and Summit 850 E-TEC except turbo |             |
| 146", 154", 165", and 175"                 | 860201905   |

## Kit Description

| <b>Sea Level Calibration Kit (P/N 860201905)</b> |                           |                    |            |
|--------------------------------------------------|---------------------------|--------------------|------------|
| <b>Description</b>                               |                           | <b>Part number</b> | <b>QTY</b> |
| Drive pulley                                     | Ramp 990                  | 417224326          | 3          |
|                                                  | Weight                    | 417224507          | 3          |
|                                                  | Pivot<br>38 mm / 16,7 g   | 417224222          | 3          |
|                                                  | Spring<br>(Blue/Yellow)   | 417224015          | 1          |
|                                                  | M14 Conical spring washer | 250200144          | 1          |
| Driven pulley                                    | Spring (Black)            | 417127039          | 1          |

| <b>Sea Level Calibration Kit (P/N 860202145)</b> |                           |                    |            |
|--------------------------------------------------|---------------------------|--------------------|------------|
| <b>Description</b>                               |                           | <b>Part number</b> | <b>QTY</b> |
| Drive pulley                                     | Spring (Purple/White)     | 417224167          | 1          |
|                                                  | Ramp 901                  | 417224626          | 3          |
|                                                  | Pivot<br>38 mm/16,7 g     | 417224222          | 3          |
|                                                  | M14 Conical spring washer | 250200144          | 1          |

|               |                |           |   |
|---------------|----------------|-----------|---|
| Driven pulley | Spring (black) | 417127039 | 1 |
|---------------|----------------|-----------|---|

## MX Z™ SPORT 600 EFI / RENEGADE SPORT 600 EFI

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### Drive Pulley

|                                                                                                                                                                                             | Sea level<br>0 m (0 FT)   | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)              | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------|---------------------|----------------------------------|---------------------|----------------------|--|
|                                                                                                                                                                                             |                           |                    |                     |                                  |                     |                      |  |
|                                                                                                                                                                                             |                           |                    |                     |                                  |                     |                      |  |
| Spring                                                                                                                                                                                      | Blue/Blue (P/N 417224013) |                    |                     | Purple/Blue (P/N 417224165)      |                     |                      |  |
| Ramp                                                                                                                                                                                        | 886 (P/N 417224688)       |                    |                     | 972 (P/N 417224268) <sup>1</sup> |                     |                      |  |
| Calibration cam position                                                                                                                                                                    | N/A                       |                    |                     | 4                                | 5                   |                      |  |
| Mass                                                                                                                                                                                        | N/A                       |                    |                     | 26 mm/13,1 g (P/N 417224220)     |                     |                      |  |
| Engagement<br>RPM ± 100                                                                                                                                                                     | 3200                      |                    |                     | 3500                             |                     |                      |  |
| Maximum<br>RPM ± 100                                                                                                                                                                        | 7500                      |                    |                     |                                  |                     |                      |  |
| <sup>1</sup><br>Parts required to complete the clicker assembly: Cam (P/N 417224113), mass (P/N 417224220), levers (P/N 417224114) and (P/N 417224086). Adjust calibration cam as per table |                           |                    |                     |                                  |                     |                      |  |

### Driven Pulley

|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                       |                         |                    |                     |                     |                     |                      |  |
| Spring                                | Green (P/N 417127137)   |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | N/A                     |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                   | 44° (P/N 417127367)     |                    |                     |                     |                     |                      |  |

## BACKCOUNTRY SPORT 600 EFI

## Drive Pulley

|                          | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)              | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--------------------------|-----------------------------|--------------------|---------------------|----------------------------------|---------------------|----------------------|--|
|                          |                             |                    |                     |                                  |                     |                      |  |
|                          |                             |                    |                     |                                  |                     |                      |  |
| Spring                   | Blue/Yellow (P/N 417224015) |                    |                     | Purple/Blue (P/N 417224165)      |                     |                      |  |
| Ramp                     | 886 (P/N 417224688)         |                    |                     | 972 (P/N 417224268) <sup>1</sup> |                     |                      |  |
| Calibration cam position | N/A                         |                    |                     | 4                                | 5                   |                      |  |
| Mass                     | N/A                         |                    |                     | 26 mm/13,1 g (P/N 417224220)     |                     |                      |  |

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Engagement RPM  $\pm$  100

3200 3500

|                                                                                                                                                                                             |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Maximum<br>RPM $\pm$ 100                                                                                                                                                                    | 7500 |
| <sup>1</sup><br>Parts required to complete the clicker assembly: Cam (P/N 417224113), mass (P/N 417224220), levers (P/N 417224114) and (P/N 417224086). Adjust calibration cam as per table |      |

## Driven Pulley

|                                               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               |                         |                    |                     |                     |                     |                      |  |
|                                               |                         |                    |                     |                     |                     |                      |  |
| Spring                                        | Black (P/N 417127039)   |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                     |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 40° XTI (P/N 417127672) |                    |                     |                     |                     |                      |  |

**EXPEDITION™ SPORT 600 EFI /**  
**SKANDIC SPORT 600 EFI /**  
**SKANDIC WT 600 EFI /**  
**TUNDRA SPORT 600 EFI /**  
**TUNDRA LT 600 EFI**

## Drive Pulley

|                                                                                                                                                                                          | Sea level<br>0 m (0 FT)       | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)              | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------|---------------------|----------------------------------|---------------------|----------------------|--|
|                                                                                                                                                                                          |                               |                    |                     |                                  |                     |                      |  |
|                                                                                                                                                                                          |                               |                    |                     |                                  |                     |                      |  |
| Spring                                                                                                                                                                                   | Yellow/Yellow (P/N 417224171) |                    |                     | Blue/Blue (P/N 417224013)        |                     |                      |  |
| Ramp                                                                                                                                                                                     | 887 (P/N 417224690)           |                    |                     | 972 (P/N 417224268) <sup>1</sup> |                     |                      |  |
| Calibration cam position                                                                                                                                                                 | N/A                           |                    |                     | 4                                | 5                   |                      |  |
| Mass                                                                                                                                                                                     | N/A                           |                    |                     | 26 mm/13,1 g (P/N 417224220)     |                     |                      |  |
| Engagement<br>RPM ± 100                                                                                                                                                                  | 2300                          |                    |                     | 3100                             |                     |                      |  |
| Maximum<br>RPM ± 100                                                                                                                                                                     | 7500                          |                    |                     |                                  |                     |                      |  |
| <sup>1</sup> Parts required to complete the clicker assembly: Cam (P/N 417224113), mass (P/N 417224220), levers (P/N 417224114) and (P/N 417224086). Adjust calibration cam as per table |                               |                    |                     |                                  |                     |                      |  |

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## Driven Pulley

|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                       |                         |                    |                     |                     |                     |                      |  |
|                                       |                         |                    |                     |                     |                     |                      |  |
| Spring                                | Green (P/N 417127137)   |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | N/A                     |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                   | 40° XTI (P/N 417127672) |                    |                     |                     |                     |                      |  |

**EXPEDITION LE 600R E-TEC /  
EXPEDITION SE 600R E-TEC /  
SKANDIC WT 600R E-TEC**

## Drive Pulley

|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  |                         |                    |                     |                     |                     |                      |  |

|                          |                              |   |   |   |                     |   |  |
|--------------------------|------------------------------|---|---|---|---------------------|---|--|
|                          |                              |   |   |   |                     |   |  |
|                          |                              |   |   |   |                     |   |  |
| Spring                   | Yellow/Blue (P/N 417224172)  |   |   |   |                     |   |  |
| Ramp                     | 971 (P/N 417224266)          |   |   |   | 972 (P/N 417224268) |   |  |
| Calibration cam position | 3                            | 4 | 5 | 3 | 4                   | 5 |  |
| Mass                     | 26 mm/13,1 g (P/N 417224220) |   |   |   |                     |   |  |
| Engagement<br>RPM ± 100  | 3400                         |   |   |   | 2900                |   |  |
| Maximum<br>RPM ± 100     | 8100                         |   |   |   |                     |   |  |

## Driven Pulley

|                                               |                         |                    |                     |                     |                     |                      |  |
|-----------------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                               |                         |                    |                     |                     |                     |                      |  |
|                                               |                         |                    |                     |                     |                     |                      |  |
| Spring                                        | Black (P/N 417127039)   |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                     |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 40° XTI (P/N 417127672) |                    |                     |                     |                     |                      |  |

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# EXPEDITION SWT 600R E-TEC / SKANDIC SWT 600R E-TEC

## Drive Pulley

|                             |                             |                    |                     |                     |                           |                         |  |
|-----------------------------|-----------------------------|--------------------|---------------------|---------------------|---------------------------|-------------------------|--|
|                             | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400<br>m<br>(8000<br>FT) | 3000 m<br>(10000<br>FT) |  |
|                             |                             |                    |                     |                     |                           |                         |  |
|                             |                             |                    |                     |                     |                           |                         |  |
| Spring                      | Yellow/Blue (P/N 417227172) |                    |                     |                     |                           |                         |  |
| Ramp                        | 971 (P/N 417224266)         |                    |                     |                     | 972 (P/N 417224268)       |                         |  |
| Calibration cam<br>position | 4                           | 5                  | 5                   | 4                   | 5                         |                         |  |

|                             |                                                     |                              |
|-----------------------------|-----------------------------------------------------|------------------------------|
| Mass                        | 38 mm/16,7 g (P/N 417224222) + 2 mm (P/N 417224363) | 38 mm/16,7 g (P/N 417224222) |
| Engagement<br>RPM $\pm$ 100 | 3400                                                | 2800                         |
| Maximum<br>RPM $\pm$ 100    | 8100                                                |                              |

## Driven Pulley

|                                               |                         |                    |                     |                     |                     |                      |  |
|-----------------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                               |                         |                    |                     |                     |                     |                      |  |
|                                               |                         |                    |                     |                     |                     |                      |  |
| Spring                                        | Black (P/N 417127039)   |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                     |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 40° XTI (P/N 417127672) |                    |                     |                     |                     |                      |  |

## MX Z™ TNT 600R E-TEC / MX Z X™ 600R E-TEC

## Drive Pulley

|        |                           |                    |                     |                               |                     |                      |  |
|--------|---------------------------|--------------------|---------------------|-------------------------------|---------------------|----------------------|--|
|        | Sea level<br>0 m (0 FT)   | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)           | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|        |                           |                    |                     |                               |                     |                      |  |
|        |                           |                    |                     |                               |                     |                      |  |
| Spring | Blue/Blue (P/N 417224013) |                    |                     | Purple/Purple (P/N 417224166) |                     |                      |  |
| Ramp   | 901 (P/N 417224626)       |                    |                     | 967 (P/N 417224225)           |                     |                      |  |

|                             |                              |                              |
|-----------------------------|------------------------------|------------------------------|
| Mass                        | 33 mm/15,2 g (P/N 417224221) | 26 mm/13,1 g (P/N 417224220) |
| Engagement<br>RPM $\pm$ 100 | 300                          | 4000                         |
| Maximum<br>RPM $\pm$ 100    | 8100                         |                              |

## Driven Pulley

|                                               |                         |                    |                     |                     |                     |                      |  |
|-----------------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                               |                         |                    |                     |                     |                     |                      |  |
| Spring                                        | Green (P/N 417127137)   |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                     |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 44° (P/N 417127367)     |                    |                     |                     |                     |                      |  |

## MX Z X-RS™ 600R E-TEC

### Drive Pulley

|                          |                         |                                 |                     |                     |                                 |                      |   |
|--------------------------|-------------------------|---------------------------------|---------------------|---------------------|---------------------------------|----------------------|---|
|                          | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)              | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT)             | 3000 m<br>(10000 FT) |   |
|                          |                         |                                 |                     |                     |                                 |                      |   |
|                          |                         |                                 |                     |                     |                                 |                      |   |
| Spring                   |                         | Blue/Blue (P/N 417224013)       |                     |                     | Green/Purple (P/N 417224014)    |                      |   |
| Ramp                     |                         | 901 (P/N 417224626)             |                     |                     | 967 (P/N 417224225)             |                      |   |
| Calibration cam position |                         | 3                               | 4                   | 5                   | 4                               |                      | 5 |
| Mass                     |                         | 33 mm/15,2 g<br>(P/N 417224221) |                     |                     | 26 mm/13,1 g<br>(P/N 417224220) |                      |   |
| Engagement<br>RPM ± 100  |                         | 3400                            |                     |                     | 4000                            |                      |   |
| Maximum<br>RPM ± 100     |                         | 8100                            |                     |                     |                                 |                      |   |

## Driven Pulley

|  |                         |                    |                     |                     |                     |                      |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|  |                         |                    |                     |                     |                     |                      |  |

|        |                       |
|--------|-----------------------|
| Spring | Green (P/N 417127137) |
|--------|-----------------------|



|                                       |                     |
|---------------------------------------|---------------------|
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | N/A                 |
| Cam angle (degrees)                   | 44° (P/N 417127367) |

## **RENEGADE™ ADRENALINE™ 600R E-TEC / RENEGADE ENDURO 600R E-TEC / RENEGADE X 600R E-TEC**

### Drive Pulley

|                          | Sea level<br>0 m (0 FT)         | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)             | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--------------------------|---------------------------------|--------------------|---------------------|---------------------------------|---------------------|----------------------|--|
|                          |                                 |                    |                     |                                 |                     |                      |  |
|                          |                                 |                    |                     |                                 |                     |                      |  |
| Spring                   | Blue/Blue (P/N 417224013)       |                    |                     | Purple/Purple (P/N 417224166)   |                     |                      |  |
| Ramp                     | 901 (P/N 417224626)             |                    |                     | 967 (P/N 417224225)             |                     |                      |  |
| Calibration cam position | 3                               | 4                  | 5                   | 4                               |                     | 5                    |  |
| Mass                     | 33 mm/15,2 g<br>(P/N 417224221) |                    |                     | 26 mm/13,1 g<br>(P/N 417224220) |                     |                      |  |
| Engagement<br>RPM ± 100  | 3400                            |                    |                     | 4000                            |                     |                      |  |
| Maximum<br>RPM ± 100     | 8100                            |                    |                     |                                 |                     |                      |  |

### Driven Pulley

|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)       | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------------------------------|-------------------------|--------------------|---------------------|---------------------------|---------------------|----------------------|--|
|                                       |                         |                    |                     |                           |                     |                      |  |
| Spring                                | Green (P/N 417127137)   |                    |                     |                           |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | N/A                     |                    |                     |                           |                     |                      |  |
| Cam angle (degrees)                   | 44° (P/N 417127367)     |                    |                     | 43° - 47° (P/N 417127371) |                     |                      |  |

## **SUMMIT SP 146" AND 154" 600R E-TEC (CAN/USA)**

# Drive Pulley

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Sea level      600 m      (4000      (6000      (8000      (10000  
0 m (0      (2000 FT)      FT)      FT)      FT)      FT)  
FT)      1200 m      1800 m      2400 m      3000 m

|                             |                              |   |   |                              |   |   |  |
|-----------------------------|------------------------------|---|---|------------------------------|---|---|--|
|                             |                              |   |   |                              |   |   |  |
|                             |                              |   |   |                              |   |   |  |
| Spring                      | Purple/White (P/N 417224167) |   |   | Blue/Purple (P/N 417224168)  |   |   |  |
| Ramp                        | 901 (P/N 417224626)          |   |   | 997 (P/N 417224430)          |   |   |  |
| Calibration cam position    | 3                            | 4 | 5 | 3                            | 4 | 5 |  |
| Mass                        | 38 mm/16,7 g (P/N 417224222) |   |   | 33 mm/15,2 g (P/N 417224221) |   |   |  |
| Engagement<br>RPM $\pm$ 100 |                              |   |   |                              |   |   |  |

3400

Maximum

RPM  $\pm$  100 8100

## Driven Pulley

|                                       |                         |                               |                     |                     |                      |                      |  |
|---------------------------------------|-------------------------|-------------------------------|---------------------|---------------------|----------------------|----------------------|--|
|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)            | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT)  | 3000 m<br>(10000 FT) |  |
|                                       |                         |                               |                     |                     |                      |                      |  |
|                                       |                         |                               |                     |                     |                      |                      |  |
| Spring                                |                         | Black (P/N 417127039)         |                     |                     | Blue (P/N 417127118) |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) |                         | N/A                           |                     |                     |                      |                      |  |
| Cam angle (degrees)                   |                         | 46° - 42° XTI (P/N 417127426) |                     |                     |                      |                      |  |

## Vehicle Calibration

|  |                         |                    |                     |                     |                     |                      |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|  |                         |                    |                     |                     |                     |                      |  |



|                     |                               |
|---------------------|-------------------------------|
| Cam angle (degrees) | 46° - 42° XTI (P/N 417127426) |
|---------------------|-------------------------------|

### Vehicle Calibration

|               |                         |                    |                     |                     |                     |                      |  |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|               |                         |                    |                     |                     |                     |                      |  |
| Stopper Strap | 4                       |                    | 3                   |                     | 2                   |                      |  |

## EXPEDITION XTREME 850 E-TEC

### Drive Pulley

|  |                         |                    |                     |                     |                     |                      |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|  |                         |                    |                     |                     |                     |                      |  |
|  |                         |                    |                     |                     |                     |                      |  |

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Spring Blue/Yellow (P/N 417224015)

|                          |                                                              |   |                                 |   |   |   |
|--------------------------|--------------------------------------------------------------|---|---------------------------------|---|---|---|
| Ramp                     | 982 (P/N 417224575)                                          |   | 904 (P/N 417224646)             |   |   |   |
| Calibration cam position | 3                                                            | 4 | 2                               | 3 | 4 | 5 |
| Mass                     | 38 mm/ 16,7g<br>(P/N 417224222)<br>+<br>2 mm (P/N 417224363) |   | 26 mm/13,1 g<br>(P/N 417224220) |   |   |   |
| Engagement<br>RPM ± 100  | 3800                                                         |   | 2900                            |   |   |   |
| Maximum<br>RPM ± 100     | 7900                                                         |   |                                 |   |   |   |

### Driven Pulley

|  |                         |                    |                     |                     |                     |                      |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|  |                         |                    |                     |                     |                     |                      |  |
|  |                         |                    |                     |                     |                     |                      |  |



## Vehicle Calibration

|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|
|               |                         |                    |                     |                     |                     |                      |
| Stopper Strap | 4                       |                    | 3                   |                     | 2                   |                      |

## Chaincase Gears

| 146" Models |                         |                    |                     |                     |                     |                      |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|             | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |
|             |                         |                    |                     |                     |                     |                      |  |
| Upper gear  | 21 (P/N 504153910)      |                    |                     |                     |                     |                      |  |
| Lower gear  | 49 (P/N 504152581)      |                    |                     |                     |                     |                      |  |
| Chain       | 114 (P/N 504153393)     |                    |                     |                     |                     |                      |  |

## FREERIDE 146" 850 E-TEC SEA-LEVEL (EUR) / SUMMIT 146" 850 E-TEC SEA-LEVEL (EUR)

### Drive Pulley

|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  |                         |                    |                     |                     |                     |                      |  |
|  |                         |                    |                     |                     |                     |                      |  |

Spring Blue/Yellow Blue/Purple (P/N 417224168)

(P/N 417224015)

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|                          |                                 |   |                                 |   |                                 |  |
|--------------------------|---------------------------------|---|---------------------------------|---|---------------------------------|--|
| Ramp                     | 990 (P/N 417224326)             |   | 965 (P/N 417224141)             |   |                                 |  |
| Calibration cam position | 3                               | 4 | 3                               | 4 | 5                               |  |
| Mass                     | 38 mm/ 16,7g<br>(P/N 417224222) |   | 33 mm/15,2 g<br>(P/N 417224221) |   | 26 mm/13,1 g<br>(P/N 417224220) |  |

|                             |      |      |
|-----------------------------|------|------|
| Engagement<br>RPM $\pm$ 100 | 3300 | 3800 |
| Maximum<br>RPM $\pm$ 100    | 7900 |      |

## Driven Pulley

|                                       | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT)  | 1800 m<br>(6000 FT)     | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------------------------------|-----------------------------|--------------------|----------------------|-------------------------|---------------------|----------------------|--|
|                                       |                             |                    |                      |                         |                     |                      |  |
|                                       |                             |                    |                      |                         |                     |                      |  |
| Spring                                | Green (P/N 417127137)       |                    | Blue (P/N 417127118) |                         |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | N/A                         |                    |                      |                         |                     |                      |  |
| Cam angle (degrees)                   | 44°-42° XTI (P/N 417127825) |                    |                      | 40° XTI (P/N 417127672) |                     |                      |  |

## Vehicle Calibration

|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|
|               |                         |                    |                     |                     |                     |                      |
|               |                         |                    |                     |                     |                     |                      |
| Stopper Strap | 4                       |                    | 3                   |                     | 2                   |                      |

## Chaincase Gears

| 146" Models |                         |                    |                     |                     |                     |                      |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|             | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |
|             |                         |                    |                     |                     |                     |                      |  |
|             |                         |                    |                     |                     |                     |                      |  |
| Upper gear  | 21 (P/N 504153910)      |                    |                     |                     |                     |                      |  |
| Lower gear  | 51 (P/N 504154110)      |                    |                     |                     |                     |                      |  |
| Chain       | 116 (P/N 504153397)     |                    |                     |                     |                     |                      |  |

**(CAN/USA) /**

## **SUMMIT 154" AND 165" 850 E-TEC SEA-LEVEL (CAN/USA)**

### **Drive Pulley**

|                             | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)                                              | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)             | 2400 m<br>(8000<br>FT) | 3000 m<br>(10000 FT)            |   |
|-----------------------------|-------------------------|-----------------------------------------------------------------|---------------------|---------------------------------|------------------------|---------------------------------|---|
|                             |                         |                                                                 |                     |                                 |                        |                                 |   |
|                             |                         |                                                                 |                     |                                 |                        |                                 |   |
| Spring                      |                         | Blue/Yellow<br>(P/N 417224015)                                  |                     | Blue/Purple (P/N 417224168)     |                        |                                 |   |
| Ramp                        |                         | 990 (P/N 417224326)                                             |                     | 965 (P/N 417224141)             |                        |                                 |   |
| Calibration cam<br>position |                         | 4                                                               | 5                   | 3                               | 4                      |                                 | 5 |
| Mass                        |                         | 38 mm/16,7 g<br>(P/N 417224222)<br>+<br>9 mm<br>(P/N 417224507) |                     | 33 mm/15,2 g<br>(P/N 417224221) |                        | 26 mm/13,1 g<br>(P/N 417224220) |   |
| Engagement<br>RPM ± 100     |                         | 3300                                                            |                     | 3800                            |                        |                                 |   |
| Maximum<br>RPM ± 100        |                         | 7900                                                            |                     |                                 |                        |                                 |   |

### **Driven Pulley**

|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT)  | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------------------------------|-------------------------|--------------------|----------------------|---------------------|---------------------|----------------------|--|
|                                       |                         |                    |                      |                     |                     |                      |  |
|                                       |                         |                    |                      |                     |                     |                      |  |
| Spring                                | Black (P/N 417127039)   |                    | Blue (P/N 417127118) |                     |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | N/A                     |                    |                      |                     |                     |                      |  |
| Cam angle (degrees)                   | 40° XTI (P/N 417127672) |                    |                      |                     |                     |                      |  |

### **Vehicle Calibration**

|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|
|  |                         |                    |                     |                     |                     |                      |



|               |   |  |   |  |   |  |
|---------------|---|--|---|--|---|--|
|               |   |  |   |  |   |  |
| Stopper Strap | 4 |  | 3 |  | 2 |  |

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## Chaincase Gears

| 154" Models |                         |                    |                     |                     |                     |              |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|--------------|--|
|             | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>FT |  |
|             |                         |                    |                     |                     |                     |              |  |
| Upper gear  | 21 (P/N 504153910)      |                    |                     |                     |                     |              |  |
| Lower gear  | 51 (P/N 504152971)      |                    |                     |                     |                     |              |  |
| Chain       | 116 (P/N 504153397)     |                    |                     |                     |                     |              |  |

| 165" Models |                         |                    |                     |                     |                     |              |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|--------------|--|
|             | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>FT |  |
|             |                         |                    |                     |                     |                     |              |  |
| Upper gear  | 21 (P/N 504153910)      |                    |                     |                     |                     |              |  |
| Lower gear  | 53 (P/N 504153998)      |                    |                     |                     |                     |              |  |
| Chain       | 116 (P/N 504153397)     |                    |                     |                     |                     |              |  |

## FREERIDE 154" AND 165" 850 E-TEC SEA-LEVEL (EUR) / SUMMIT 154" AND 165" 850 E-TEC SEA-LEVEL (EUR)

### Drive Pulley

|        |                         |                                |                     |                             |                     |                      |  |
|--------|-------------------------|--------------------------------|---------------------|-----------------------------|---------------------|----------------------|--|
|        | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)             | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)         | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|        |                         |                                |                     |                             |                     |                      |  |
| Spring |                         | Blue/Yellow<br>(P/N 417224015) |                     | Blue/Purple (P/N 417224168) |                     |                      |  |

|                          |                                 |   |                                 |   |                                 |
|--------------------------|---------------------------------|---|---------------------------------|---|---------------------------------|
| Ramp                     | 990 (P/N 417224326)             |   | 965 (P/N 417224141)             |   |                                 |
| Calibration cam position | 3                               | 4 | 3                               | 4 | 5                               |
| Mass                     | 38 mm/16,7 g<br>(P/N 417224222) |   | 33 mm/15,2 g<br>(P/N 417224221) |   | 26 mm/13,1 g<br>(P/N 417224220) |
| Engagement<br>RPM ± 100  | 3300                            |   | 3800                            |   |                                 |
| Maximum<br>RPM ± 100     | 7900                            |   |                                 |   |                                 |

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## Driven Pulley

|                                       |                         |                        |                     |                         |                     |                      |  |
|---------------------------------------|-------------------------|------------------------|---------------------|-------------------------|---------------------|----------------------|--|
|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)     | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)     | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                       |                         |                        |                     |                         |                     |                      |  |
|                                       |                         |                        |                     |                         |                     |                      |  |
| Spring                                |                         | Green (P/N 417127137)  |                     | Blue (P/N 417127118)    |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) |                         | N/A                    |                     |                         |                     |                      |  |
| Cam angle (degrees)                   |                         | 44°-42° XTI (417127825 |                     | 40° XTI (P/N 417127672) |                     |                      |  |

## Vehicle Calibration

|               |                         |                    |                     |                     |                     |                      |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|
|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |
|               |                         |                    |                     |                     |                     |                      |
|               |                         |                    |                     |                     |                     |                      |
| Stopper Strap |                         |                    |                     |                     |                     |                      |

4 3 2

## Chaincase Gears

| 154" and 165" Models |                         |                    |                     |                     |                     |              |  |
|----------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|--------------|--|
|                      | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>FT |  |
|                      |                         |                    |                     |                     |                     |              |  |
|                      |                         |                    |                     |                     |                     |              |  |



|                     |                             |
|---------------------|-----------------------------|
| Cam angle (degrees) | 42°-38° XTI (P/N 417127693) |
|---------------------|-----------------------------|

## Vehicle Calibration

|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|               |                         |                    |                     |                     |                     |                      |  |
| Stopper Strap | 4                       |                    | 3                   |                     | 2                   |                      |  |

## Chaincase Gears

| 146" Models |                         |                    |                     |                     |                     |                      |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|             | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |
|             |                         |                    |                     |                     |                     |                      |  |
| Upper gear  | 21 (P/N 504153910)      |                    |                     |                     |                     |                      |  |
| Lower gear  | 49 (P/N 504152581)      |                    |                     |                     |                     |                      |  |
| Chain       | 114 (P/N 504153393)     |                    |                     |                     |                     |                      |  |

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## Sea Level Calibration Kit

| Model | Part number |
|-------|-------------|
| 146"  | 860201905   |

## FREERIDE 154" AND 165" 850 E-TEC HIGH ALTITUDE / SUMMIT 154" AND 165" 850 E-TEC HIGH ALTITUDE

## Drive Pulley

|        | Sea level<br>0 m (0 FT)        | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT)         | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--------|--------------------------------|--------------------|-----------------------------|---------------------|---------------------|----------------------|--|
|        |                                |                    |                             |                     |                     |                      |  |
| Spring | Blue/Yellow<br>(P/N 417224015) |                    | Blue/Purple (P/N 417224168) |                     |                     |                      |  |

|                          |                                                                 |   |                                 |   |                                 |
|--------------------------|-----------------------------------------------------------------|---|---------------------------------|---|---------------------------------|
| Ramp                     | 990 (P/N 417224326)                                             |   | 965 (P/N 417224141)             |   |                                 |
| Calibration cam position | 4                                                               | 5 | 3                               | 4 | 5                               |
| Mass                     | 38 mm/ 16,7g<br>(P/N 417224222)<br>+<br>9 mm<br>(P/N 417224507) |   | 33 mm/15,2 g<br>(P/N 417224221) |   | 26 mm/13,1 g<br>(P/N 417224220) |
| Engagement<br>RPM ± 100  | 3300                                                            |   | 3600                            |   |                                 |
| Maximum<br>RPM ± 100     | 7900                                                            |   |                                 |   |                                 |

## Driven Pulley

|                                       |                         |                          |                     |                      |                     |                      |  |
|---------------------------------------|-------------------------|--------------------------|---------------------|----------------------|---------------------|----------------------|--|
|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)       | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)  | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                       |                         |                          |                     |                      |                     |                      |  |
|                                       |                         |                          |                     |                      |                     |                      |  |
| Spring                                |                         | Black<br>(P/N 417127039) |                     | Blue (P/N 417127118) |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) |                         | N/A                      |                     |                      |                     |                      |  |
| Cam angle (degrees)                   |                         | 40° XTI (P/N 417127672)  |                     |                      |                     |                      |  |

## Vehicle Calibration



Sea level 0 m (0 FT)      600 m (2000 FT)      1200 m (4000 FT)      1800 m (6000 FT)      2400 m (8000 FT)      3000 m (10000 FT)

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|               |   |   |   |  |  |  |
|---------------|---|---|---|--|--|--|
|               |   |   |   |  |  |  |
| Stopper Strap | 4 | 3 | 2 |  |  |  |

## Chaincase Gears

| 154" models |                         |                    |                     |                     |                     |                      |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|             | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |
|             |                         |                    |                     |                     |                     |                      |  |



|                          |                                                              |   |                                 |   |                                 |   |
|--------------------------|--------------------------------------------------------------|---|---------------------------------|---|---------------------------------|---|
|                          |                                                              |   |                                 |   |                                 |   |
| Spring                   | Blue/Yellow<br>(P/N 417224015)                               |   | Purple/White (P/N 417224167)    |   |                                 |   |
| Ramp                     | 990 (P/N 417224326)                                          |   | 965 (P/N 417224141)             |   |                                 |   |
| Calibration cam position | 4                                                            | 5 | 3                               | 4 |                                 | 5 |
| Mass                     | 38 mm/ 16,7g<br>(P/N 417224222)<br>+<br>9 mm (P/N 417224507) |   | 33 mm/15,2 g<br>(P/N 417224221) |   | 26 mm/13,1 g<br>(P/N 417224220) |   |
| Engagement<br>RPM ± 100  | 3300                                                         |   | 3900                            |   |                                 |   |
| Maximum<br>RPM ± 100     | 7900                                                         |   |                                 |   |                                 |   |

## Driven Pulley

|                                       |                         |                          |                     |                      |                     |                      |  |
|---------------------------------------|-------------------------|--------------------------|---------------------|----------------------|---------------------|----------------------|--|
|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)       | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)  | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                       |                         |                          |                     |                      |                     |                      |  |
|                                       |                         |                          |                     |                      |                     |                      |  |
| Spring                                |                         | Black<br>(P/N 417127039) |                     | Blue (P/N 417127118) |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) |                         | N/A                      |                     |                      |                     |                      |  |
| Cam angle (degrees)                   |                         | 40° XTI (P/N 417127672)  |                     |                      |                     |                      |  |

## Vehicle Calibration

|               |                         |                    |                     |                     |                     |                      |  |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|               |                         |                    |                     |                     |                     |                      |  |
|               |                         |                    |                     |                     |                     |                      |  |
| Stopper Strap | 4                       |                    | 3                   |                     | 2                   |                      |  |

## Chaincase Gears

| 175" Models |                         |                    |                     |                     |                     |                      |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|             | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|

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| 175" Models |                     |  |  |  |  |  |
|-------------|---------------------|--|--|--|--|--|
|             |                     |  |  |  |  |  |
| Upper gear  | 21 (P/N 504153910)  |  |  |  |  |  |
| Lower gear  | 53 (P/N 504153998)  |  |  |  |  |  |
| Chain       | 116 (P/N 504153397) |  |  |  |  |  |

### Sea Level Calibration Kit

| Model | Part number |
|-------|-------------|
| 175"  | 860201905   |

## FREERIDE 154" AND 165" 850 E-TEC TURBO SEA LEVEL (EUR) / SUMMIT 154" AND 165" 850 E-TEC TURBO SEA LEVEL (EUR)

### Drive Pulley

|                          | Sea level<br>0 m (0 FT)         | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT)                                             | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT)                            | 3000 m<br>(10000 FT)                                                |  |
|--------------------------|---------------------------------|--------------------|-----------------------------------------------------------------|---------------------|------------------------------------------------|---------------------------------------------------------------------|--|
|                          |                                 |                    |                                                                 |                     |                                                |                                                                     |  |
| Spring                   | Blue/Yellow<br>(P/N 417224015)  |                    | Blue/Purple (P/N 417224168)                                     |                     |                                                |                                                                     |  |
| Ramp                     | 951 (P/N 417224038)             |                    | 994 (P/N 417224758)                                             |                     |                                                | 903<br>(P/N 417224642)                                              |  |
| Calibration cam position | 3                               |                    | 1                                                               |                     |                                                | 5 (154")<br>4 (165")                                                |  |
| Mass                     | 33 mm/15,2 g<br>(P/N 417224221) |                    | 33 mm/15,2 g<br>(P/N 417224221)<br>+<br>3 mm<br>(P/N 417224364) |                     | 33 mm<br>/15,2 g<br>(P/N<br>417<br>22422<br>1) | 38 mm/ 16,7g<br>(P/N 417224<br>222)<br>+<br>7 mm<br>(P/N 417224366) |  |





|       |                     |
|-------|---------------------|
| Chain | 116 (P/N 504153759) |
|-------|---------------------|

| Freeride 154" models |                         |                    |                     |                     |                     |                      |  |
|----------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                      | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |
|                      |                         |                    |                     |                     |                     |                      |  |
| Upper gear           | 21 (P/N 504154188)      |                    |                     |                     |                     |                      |  |
| Lower gear           | 51 (P/N 504154183)      |                    |                     |                     |                     |                      |  |
| Chain                | 116 (P/N 504153759)     |                    |                     |                     |                     |                      |  |

## Gear Ratio and Application

**NOTE:** Summit and Freeride are built for deep snow conditions and should never be used in marginal or hard pack snow conditions. Going to higher ratios could lead to reduced belt life and track delamination.

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| gear ratio | Application                | pro's            | con's                                       |
|------------|----------------------------|------------------|---------------------------------------------|
| 21/51      | Best all around gear ratio | Reference        | 116 km/h max speed. Rev limiter can turn on |
| 21/53      | Deep snow                  | Better belt life | 111 km/h max speed. Rev limiter can turn on |

## FREERIDE 154" AND 165" 850 E-TEC TURBO HIGH ALTITUDE (CAN/USA) / SUMMIT 154", 165" AND 175" 850 E-TEC TURBO HIGH ALTITUDE (CAN/USA AND ASIA)

### Drive Pulley

|                          | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT)          |  |
|--------------------------|-----------------------------|--------------------|---------------------|---------------------|---------------------|-------------------------------|--|
|                          |                             |                    |                     |                     |                     |                               |  |
| Spring                   | Blue/Purple (P/N 417224168) |                    |                     |                     |                     |                               |  |
| Ramp                     | 994 (P/N 417224758)         |                    |                     |                     |                     | 903<br>(P/N 417224642)        |  |
| Calibration cam position | 3                           |                    | 1                   |                     |                     | 5 (154")<br>4 (165" and 175") |  |



|            |                     |
|------------|---------------------|
| Lower gear | 51 (P/N 504154183)  |
| Chain      | 116 (P/N 504153759) |

| 165" and 175" Models |                         |                    |                     |                     |                     |                      |  |
|----------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                      | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |
|                      |                         |                    |                     |                     |                     |                      |  |
| Upper gear           | 21 (P/N 504154188)      |                    |                     |                     |                     |                      |  |
| Lower gear           | 53 (P/N 504154167)      |                    |                     |                     |                     |                      |  |
| Chain                | 116 (P/N 504153759)     |                    |                     |                     |                     |                      |  |

## Gear Ratio and Application

**NOTE:** Summit and Freeride are built for deep snow conditions and should never be used in marginal or hard pack snow conditions. Going to higher ratios could lead to reduced belt life and track delamination.

| gear ratio | Application                | pro's            | con's                                       |
|------------|----------------------------|------------------|---------------------------------------------|
| 21/51      | Best all around gear ratio | Reference        | 116 km/h max speed. Rev limiter can turn on |
| 21/53      | Deep snow                  | Better belt life | 111 km/h max speed. Rev limiter can turn on |

## MX Z TNT 850 E-TEC / MX Z X 850 E-TEC / MX Z X-RS 850 E-TEC

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## Drive Pulley

|                          |                         |                              |                     |                             |                     |                      |   |
|--------------------------|-------------------------|------------------------------|---------------------|-----------------------------|---------------------|----------------------|---|
|                          | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)           | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)         | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |   |
|                          |                         |                              |                     |                             |                     |                      |   |
| Spring                   |                         | Blue/Blue<br>(P/N 417224013) |                     | Blue/Yellow (P/N 417224015) |                     |                      |   |
| Ramp                     |                         | 968<br>(P/N 417224227)       |                     | 967 (P/N 417224225)         |                     |                      |   |
| Calibration cam position |                         | 3                            | 4                   | 2                           | 3                   | 4                    | 5 |

|                             |                              |      |
|-----------------------------|------------------------------|------|
| Mass                        | 38 mm/ 16,7g (P/N 417224222) |      |
| Engagement<br>RPM $\pm$ 100 | 3200                         | 4000 |
| Maximum<br>RPM $\pm$ 100    | 7900                         |      |

## Driven Pulley

|                                               |                         |                           |                     |                     |                     |                      |  |
|-----------------------------------------------|-------------------------|---------------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)        | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                               |                         |                           |                     |                     |                     |                      |  |
| Spring                                        |                         | Green (P/N 417127137)     |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) |                         | N/A                       |                     |                     |                     |                      |  |
| Cam angle (degrees)                           |                         | 45° - 42° (P/N 417127534) |                     |                     |                     |                      |  |

## RENEGADE ADRENALINE 850 E-TEC / RENEGADE X 850 E-TEC / RENEGADE X-RS 850 E-TEC / RENEGADE ENDURO 850 E-TEC

## Drive Pulley

|        |                         |                                |                     |                                  |                     |                      |  |
|--------|-------------------------|--------------------------------|---------------------|----------------------------------|---------------------|----------------------|--|
|        | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)             | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)              | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|        |                         |                                |                     |                                  |                     |                      |  |
| Spring |                         | Yellow/Blue<br>(P/N 417224172) |                     | Yellow/Yellow<br>(P/N 417224171) |                     |                      |  |

Ramp 968 967 (P/N 417224225)

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(P/N 417224227)

|                          |                              |   |   |   |   |   |
|--------------------------|------------------------------|---|---|---|---|---|
| Calibration cam position | 3                            | 4 | 2 | 3 | 4 | 5 |
| Mass                     | 38 mm/ 16,7g (P/N 417224222) |   |   |   |   |   |

|                             |      |      |
|-----------------------------|------|------|
| Engagement<br>RPM $\pm$ 100 | 2900 | 3400 |
| Maximum<br>RPM $\pm$ 100    | 7900 |      |

## Driven Pulley

|                                               | Sea level<br>0 m (0 FT)   | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------------------------|---------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               |                           |                    |                     |                     |                     |                      |  |
|                                               |                           |                    |                     |                     |                     |                      |  |
| Spring                                        | Green (P/N 417127137)     |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                       |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 44° - 42° (P/N 417127325) |                    |                     |                     |                     |                      |  |

## BACKCOUNTRY 850 E-TEC / BACKCOUNTRY X 850 E-TEC / BACKCOUNTRY X-RS 850 E-TEC (TRACK WITH PROFILE OF 40 MM (1.6 IN))

## Drive Pulley

|                             | Sea level<br>0 m (0 FT)                                         | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT)             | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT)            |  |
|-----------------------------|-----------------------------------------------------------------|--------------------|---------------------------------|---------------------|---------------------|---------------------------------|--|
|                             |                                                                 |                    |                                 |                     |                     |                                 |  |
|                             |                                                                 |                    |                                 |                     |                     |                                 |  |
| Spring                      | Blue/Yellow<br>(P/N 417224015)                                  |                    | Blue/Purple (P/N 417224168)     |                     |                     |                                 |  |
| Ramp                        | 990 (P/N 417224326)                                             |                    | 995 (P/N 417224450)             |                     |                     |                                 |  |
| Calibration cam<br>position | 4                                                               | 5                  | 3                               |                     |                     | 4                               |  |
| Mass                        | 38 mm/16,7 g<br>(P/N 417224222)<br>+<br>9 mm<br>(P/N 417224507) |                    | 33 mm/18.8 g<br>(P/N 417224221) |                     |                     | 26 mm/13,1 g<br>(P/N 417224220) |  |
| Engagement<br>RPM ± 100     | 3300                                                            |                    | 3800                            |                     |                     |                                 |  |

Maximum  
RPM  $\pm$  100

7900

## Driven Pulley

|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)            | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)  | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------------------------------|-------------------------|-------------------------------|---------------------|----------------------|---------------------|----------------------|--|
|                                       |                         |                               |                     |                      |                     |                      |  |
|                                       |                         |                               |                     |                      |                     |                      |  |
| Spring                                |                         | Black (P/N 417127039)         |                     | Blue (P/N 417127118) |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) |                         | N/A                           |                     |                      |                     |                      |  |
| Cam angle (degrees)                   |                         | 42° - 38° XTI (P/N 417127693) |                     |                      |                     |                      |  |

## Vehicle Calibration

|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|
|               |                         |                    |                     |                     |                     |                      |
| Stopper Strap | 4                       |                    | 3                   |                     | 2                   |                      |

## Chaincase Gears

| With 1.6" profile track |                         |                    |                     |                     |                     |                      |  |
|-------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                         | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>(10000 FT) |  |
|                         |                         |                    |                     |                     |                     |                      |  |
| Upper gear              | 21 (P/N 504153910)      |                    |                     |                     |                     |                      |  |
| Lower gear              | 45 (P/N 504152593)      |                    |                     |                     |                     |                      |  |
| Chain                   | 112 (P/N 504153268)     |                    |                     |                     |                     |                      |  |

**BACKCOUNTRY X 850 E-TEC /  
BACKCOUNTRY X-RS 850 E-TEC (CAN/USA) (TRACK WITH  
PROFILE OF 50 MM (2 IN) AND 63 MM (2-1/2 IN))**

## Drive Pulley

|                                                                                   |                         | 600 m<br>(2000 FT) | (4000<br>FT) | (6000<br>FT) | (8000<br>FT) | (10000<br>FT) |
|-----------------------------------------------------------------------------------|-------------------------|--------------------|--------------|--------------|--------------|---------------|
|  | Sea level<br>0 m (0 FT) | 1200 m             | 1800 m       | 2400 m       | 3000 m       |               |

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|                          |                                                              |   |                                 |  |  |                                 |   |  |
|--------------------------|--------------------------------------------------------------|---|---------------------------------|--|--|---------------------------------|---|--|
|                          |                                                              |   |                                 |  |  |                                 |   |  |
| Spring                   | Blue/Yellow<br>(P/N 417224015)                               |   | Blue/Purple (P/N 417224168)     |  |  |                                 |   |  |
| Ramp                     | 990 (P/N 417224326)                                          |   | 995 (P/N 417224450)             |  |  |                                 |   |  |
| Calibration cam position | 4                                                            | 5 | 4                               |  |  |                                 | 5 |  |
| Mass                     | 38 mm/16,7 g<br>(P/N 417224222)<br>+<br>9 mm (P/N 417224507) |   | 33 mm/18.8 g<br>(P/N 417224221) |  |  | 26 mm/13,1 g<br>(P/N 417224220) |   |  |
| Engagement<br>RPM ± 100  | 3300                                                         |   | 3800                            |  |  |                                 |   |  |
| Maximum<br>RPM ± 100     | 7900                                                         |   |                                 |  |  |                                 |   |  |

## Driven Pulley

| 146" MODELS                           |                         |                               |                     |                      |                     |                      |  |
|---------------------------------------|-------------------------|-------------------------------|---------------------|----------------------|---------------------|----------------------|--|
|                                       | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT)            | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)  | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                       |                         |                               |                     |                      |                     |                      |  |
|                                       |                         |                               |                     |                      |                     |                      |  |
| Spring                                |                         | Black (P/N 417127039)         |                     | Blue (P/N 417127118) |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) |                         | N/A                           |                     |                      |                     |                      |  |
| Cam angle (degrees)                   |                         | 42° - 38° XTI (P/N 417127693) |                     |                      |                     |                      |  |

| 154" mODELS |                         |                    |                     |                     |                     |                      |  |
|-------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|             | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|             |                         |                    |                     |                     |                     |                      |  |



|                                               |                         |                      |
|-----------------------------------------------|-------------------------|----------------------|
| Spring                                        | Black (P/N 417127039)   | Blue (P/N 417127118) |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                     |                      |
| Cam angle (degrees)                           | 40° XTI (P/N 417127672) |                      |

## Vehicle Calibration

|  |                         |                    |                     |                     |                     |                      |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|
|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |
|  |                         |                    |                     |                     |                     |                      |

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|               |   |   |   |
|---------------|---|---|---|
| Stopper Strap | 4 | 3 | 2 |
|---------------|---|---|---|

## Chaincase Gears

| with 2" profile track |                         |                     |                     |                     |                     |              |  |
|-----------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|--------------|--|
|                       | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT)  | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>FT |  |
|                       |                         |                     |                     |                     |                     |              |  |
| Upper gear            |                         | 23 (P/N 504091000)  |                     |                     |                     |              |  |
| Lower gear            |                         | 51 (P/N 504152971)  |                     |                     |                     |              |  |
| Chain                 |                         | 116 (P/N 504153397) |                     |                     |                     |              |  |

| with 2.5" profile track |                         |                     |                     |                     |                     |              |  |
|-------------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|--------------|--|
|                         | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT)  | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>FT |  |
|                         |                         |                     |                     |                     |                     |              |  |
| Upper gear              |                         | 21 (P/N 504153910)  |                     |                     |                     |              |  |
| Lower gear              |                         | 51 (P/N 504152971)  |                     |                     |                     |              |  |
| Chain                   |                         | 116 (P/N 504153397) |                     |                     |                     |              |  |

**BACKCOUNTRY X-RS 850 E-TEC (EUR)**

## Drive Pulley

|                          | Sea level<br>0 m (0 FT)         | 600 m<br>(2000 FT)              | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT)             | 3000 m<br>(10000 FT) |  |
|--------------------------|---------------------------------|---------------------------------|---------------------|---------------------|---------------------------------|----------------------|--|
|                          |                                 |                                 |                     |                     |                                 |                      |  |
|                          |                                 |                                 |                     |                     |                                 |                      |  |
| Spring                   | Blue/Yellow<br>(P/N 417224015)  | Blue/Purple (P/N 417224168)     |                     |                     |                                 |                      |  |
| Ramp                     | 990 (P/N 417224326)             | 995 (P/N 417224450)             |                     |                     |                                 |                      |  |
| Calibration cam position | 3                               | 4                               | 4                   |                     |                                 | 5                    |  |
| Mass                     | 38 mm/16,7 g<br>(P/N 417224222) | 33 mm/18.8 g<br>(P/N 417224221) |                     |                     | 26 mm/13,1 g<br>(P/N 417224220) |                      |  |

Engagement RPM  $\pm$  100

3300 3800

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|                          |      |
|--------------------------|------|
| Maximum<br>RPM $\pm$ 100 | 7900 |
|--------------------------|------|

## Driven Pulley

|                                       |                               |                    |                     |                               |                     |                      |  |
|---------------------------------------|-------------------------------|--------------------|---------------------|-------------------------------|---------------------|----------------------|--|
|                                       | Sea level<br>0 m (0 FT)       | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT)           | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                       |                               |                    |                     |                               |                     |                      |  |
|                                       |                               |                    |                     |                               |                     |                      |  |
| Spring                                | Green (P/N 417127137)         |                    |                     | Blue (P/N 417127118)          |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | N/A                           |                    |                     |                               |                     |                      |  |
| Cam angle (degrees)                   | 44° - 42° XTI (P/N 417127825) |                    |                     | 42° - 38° XTI (P/N 417127693) |                     |                      |  |

## Vehicle Calibration

|               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|---------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|               |                         |                    |                     |                     |                     |                      |  |
|               |                         |                    |                     |                     |                     |                      |  |
| Stopper Strap | 4                       |                    | 3                   |                     | 2                   |                      |  |

## Chaincase Gears

| with 2" and 2.5" profile track |                         |                    |                     |                     |                     |              |  |
|--------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|--------------|--|
|                                | Sea level<br>0 M (0 FT) | 600 M<br>(2000 FT) | 1200 M<br>(4000 FT) | 1800 M<br>(6000 FT) | 2400 M<br>(8000 FT) | 3000 M<br>FT |  |
|                                |                         |                    |                     |                     |                     |              |  |
| Upper gear                     | 21 (P/N 504153910)      |                    |                     |                     |                     |              |  |
| Lower gear                     | 51 (P/N 504152971)      |                    |                     |                     |                     |              |  |
| Chain                          | 116 (P/N 504153397)     |                    |                     |                     |                     |              |  |

## TUNDRA SPORT 600 ACE / TUNDRA LT 600 ACE

### Drive Pulley

|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  |                         |                    |                     |                     |                     |                      |  |
|  |                         |                    |                     |                     |                     |                      |  |

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Spring Red/Red (P/N 417223745)    Red/Yellow (P/N 417 223748)    Red/White (P/N 417223747)    Red/Red (P/N 417 223745)

|                             |                     |                     |
|-----------------------------|---------------------|---------------------|
| Ramp                        | 716 (P/N 417223508) | 725 (P/N 417223601) |
| Ramp quantity               | 6                   |                     |
| Engagement<br>RPM $\pm$ 100 | 2200                |                     |
| Maximum<br>RPM $\pm$ 100    | 7300                |                     |

### Driven Pulley

Sea level    0 m (0 FT)    600 m (2000 FT)    1200 m (4000 FT)    1800 m (6000 FT)    2400 m (8000 FT)    3000 m (10000 FT)

Spring Red (P/N 417127467)

Kg  $\pm$  0.7 (lb  $\pm$  1.5) 7.3 kgf (16.1 lbf) (1-C)

# RENEGADE SPORT 600 ACE / GRAND TOURING SPORT 600 ACE

|                             |                                |                                   |                                   |                              |                                |                                |  |  |  |  |
|-----------------------------|--------------------------------|-----------------------------------|-----------------------------------|------------------------------|--------------------------------|--------------------------------|--|--|--|--|
|                             | Sea level<br>0 m (0 FT)        | 600 m<br>(2000 FT)                | 1200 m<br>(4000 FT)               | 1800 m<br>(6000 FT)          | 2400<br>m<br>(8000<br>FT)      | 3000<br>m<br>(1000<br>0<br>FT) |  |  |  |  |
|                             |                                |                                   |                                   |                              |                                |                                |  |  |  |  |
|                             |                                |                                   |                                   |                              |                                |                                |  |  |  |  |
| Spring                      | Red/Red<br>(P/N 417<br>223745) | Red/Yellow<br>(P/N 417<br>223748) | Red/Orange<br>(P/N 417<br>223749) | Red/White<br>(P/N 417223747) | Red/Red<br>(P/N 417<br>223745) |                                |  |  |  |  |
| Ramp                        | 715 (P/N 417223510)            |                                   |                                   |                              | 725 (P/N 417223601)            |                                |  |  |  |  |
| Ramp<br>quantity            | 6                              |                                   |                                   |                              |                                |                                |  |  |  |  |
| Engagem<br>ent RPM<br>± 100 | 2200                           |                                   |                                   |                              |                                |                                |  |  |  |  |
| Maximum<br>RPM ± 100        | 7300                           |                                   |                                   |                              |                                |                                |  |  |  |  |

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Sea level      600 m      (4000      (6000      (8000      (10000  
 0 m (0      (2000 FT)      FT)      FT)      FT)      FT)  
 FT)      1200 m      1800 m      2400 m      3000 m

|                                               |  |                          |  |  |  |  |  |
|-----------------------------------------------|--|--------------------------|--|--|--|--|--|
|                                               |  |                          |  |  |  |  |  |
|                                               |  |                          |  |  |  |  |  |
| Spring                                        |  | Red/Red (P/N 417127467)  |  |  |  |  |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) |  | 7.3 kgf (16.1 lbf) (1-C) |  |  |  |  |  |
| Cam angle (degrees)                           |  | 41°-45° (P/N 417127747)  |  |  |  |  |  |

# EXPEDITION SPORT 600 ACE

## Drive Pulley

|                         | Sea level<br>0 m (0 FT)    | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT)               | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT)          | 3000 m<br>(10000 FT) |                                |
|-------------------------|----------------------------|--------------------|-----------------------------------|---------------------|------------------------------|----------------------|--------------------------------|
|                         |                            |                    |                                   |                     |                              |                      |                                |
|                         |                            |                    |                                   |                     |                              |                      |                                |
| Spring                  | Red/Red<br>(P/N 417223745) |                    | Red/Yellow<br>(P/N 417<br>223748) |                     | Red/White<br>(P/N 417223747) |                      | Red/Red<br>(P/N 417<br>223745) |
| Ramp                    | 716 (P/N 417223508)        |                    |                                   |                     | 725 (P/N 417223601)          |                      |                                |
| Ramp quantity           | 6                          |                    |                                   |                     |                              |                      |                                |
| Engagement<br>RPM ± 100 | 2200                       |                    |                                   |                     |                              |                      |                                |
| Maximum<br>RPM ± 100    | 7300                       |                    |                                   |                     |                              |                      |                                |

## Driven Pulley

|                                               | Sea level<br>0 m (0 FT)  | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------------------------|--------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               |                          |                    |                     |                     |                     |                      |  |
|                                               |                          |                    |                     |                     |                     |                      |  |
|                                               |                          |                    |                     |                     |                     |                      |  |
|                                               |                          |                    |                     |                     |                     |                      |  |
| Spring                                        | Red (P/N 417127467)      |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | 7.3 kgf (16.1 lbf) (1-C) |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 41°-45° (P/N 417127747)  |                    |                     |                     |                     |                      |  |

# SKANDIC WT 600 ACE

## Drive Pulley



Sea level 600 m 1200 m 1800 m 2400 m 3000  
m

|  |            |  |
|--|------------|--|
|  | 0 m (0 FT) |  |
|--|------------|--|

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

(2000 FT)  
(4000 FT)

(6000 FT) (8000 FT)  
(10000 FT)

|                       |                            |                              |                            |                               |                               |  |  |  |  |
|-----------------------|----------------------------|------------------------------|----------------------------|-------------------------------|-------------------------------|--|--|--|--|
|                       |                            |                              |                            |                               |                               |  |  |  |  |
|                       |                            |                              |                            |                               |                               |  |  |  |  |
| Spring                | Red/Red<br>(P/N 417223745) | Red/White<br>(P/N 417223747) | Red/Red<br>(P/N 417223745) | Red/Yellow<br>(P/N 417223748) | Red/Orange<br>(P/N 417223749) |  |  |  |  |
| Ramp                  | 716<br>(P/N 417223508)     | 725 (P/N 417223601)          |                            |                               |                               |  |  |  |  |
| Ramp quantity         | 6                          |                              |                            |                               |                               |  |  |  |  |
| Engagem ent RPM ± 100 | 2200                       |                              |                            |                               |                               |  |  |  |  |
| Maximum RPM ± 100     | 7300                       |                              |                            |                               |                               |  |  |  |  |

## Driven Pulley

|                                       |                          |                    |                     |                     |                     |                      |  |
|---------------------------------------|--------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                       | Sea level<br>0 m (0 FT)  | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|                                       |                          |                    |                     |                     |                     |                      |  |
|                                       |                          |                    |                     |                     |                     |                      |  |
| Spring                                | Red (P/N 417127467344)   |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg ± 0.7 (lb ± 1.5) | 7.3 kgf (16.1 lbf) (1-C) |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                   | 41°-45° (P/N 417127747)  |                    |                     |                     |                     |                      |  |

## EXPEDITION LE / SE 900 ACE

### Drive Pulley

|        |                             |                                  |                     |                     |                              |                      |  |
|--------|-----------------------------|----------------------------------|---------------------|---------------------|------------------------------|----------------------|--|
|        | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT)               | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT)          | 3000 m<br>(10000 FT) |  |
|        |                             |                                  |                     |                     |                              |                      |  |
|        |                             |                                  |                     |                     |                              |                      |  |
| Spring | Red/Blue<br>(P/N 417224330) | Yellow/Yellow<br>(P/N 417224171) |                     |                     | Blue/Blue<br>(P/N 417224013) |                      |  |

|                             |                     |                     |      |
|-----------------------------|---------------------|---------------------|------|
| Ramp                        | 882 (P/N 417224495) | 895 (P/N 417224256) |      |
| Engagement<br>RPM $\pm$ 100 | 2200                | 2800                | 3200 |
| Maximum<br>RPM $\pm$ 100    | 7250                |                     |      |

## Driven Pulley

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|                                               | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               |                         |                    |                     |                     |                     |                      |  |
| Spring                                        | Beige2 (P/N 417127242)  |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | 7.0 kg (15.4 lb) (2-E)  |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 42° (P/N 417127420)     |                    |                     |                     |                     |                      |  |

## GRAND TOURING SPORT 900 ACE / GRAND TOURING LTD 900 ACE / RENEGADE ADRENALINE 900 ACE / RENEGADE ENDURO 900 ACE

### Drive Pulley

|                         |                             |                    |                     |                     |                     |                                |  |
|-------------------------|-----------------------------|--------------------|---------------------|---------------------|---------------------|--------------------------------|--|
|                         | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT)           |  |
|                         |                             |                    |                     |                     |                     |                                |  |
|                         |                             |                    |                     |                     |                     |                                |  |
| Spring                  | Red/Blue<br>(P/N 417224330) |                    |                     |                     |                     | Blue/Purple<br>(P/N 417224168) |  |
| Ramp                    | 826 (P/N 417224370)         |                    |                     | 895 (P/N 417224256) |                     |                                |  |
| Engagement<br>RPM ± 100 | 2200                        |                    |                     | 2400                |                     | 2600                           |  |
| Maximum<br>RPM ± 100    | 7250                        |                    |                     |                     |                     |                                |  |

## Driven Pulley





# SKANDIC WT 900 ACE

## Drive Pulley

|                         | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT)              | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT)          | 3000 m<br>(10000 FT) |  |
|-------------------------|-----------------------------|--------------------|----------------------------------|---------------------|------------------------------|----------------------|--|
|                         |                             |                    |                                  |                     |                              |                      |  |
|                         |                             |                    |                                  |                     |                              |                      |  |
| Spring                  | Red/Blue<br>(P/N 417224330) |                    | Yellow/Yellow<br>(P/N 417224171) |                     | Blue/Blue<br>(P/N 417224013) |                      |  |
| Ramp                    | 882 (P/N 417224495)         |                    | 895 (P/N 417224256)              |                     |                              |                      |  |
| Engagement<br>RPM ± 100 | 2200                        |                    | 2800                             |                     | 3200                         |                      |  |
| Maximum<br>RPM ± 100    | 7300                        |                    |                                  |                     |                              |                      |  |

## Driven Pulley

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2/24/2021

Sea level      600 m      (4000      (6000      (8000      (10000  
0 m (0      1200 m      FT)      FT)      FT)      FT)  
FT)      1800 m      2400 m      3000 m

|                                               |  |                         |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------------------|--|-------------------------|--|--|--|--|--|--|--|--|--|--|--|
|                                               |  |                         |  |  |  |  |  |  |  |  |  |  |  |
|                                               |  |                         |  |  |  |  |  |  |  |  |  |  |  |
|                                               |  |                         |  |  |  |  |  |  |  |  |  |  |  |
| Spring                                        |  | Red/Red (P/N 417127467) |  |  |  |  |  |  |  |  |  |  |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) |  | 7.0 kg (15.4 lb) (2-E)  |  |  |  |  |  |  |  |  |  |  |  |
| Cam angle (degrees)                           |  | 42° - A (P/N 417127420) |  |  |  |  |  |  |  |  |  |  |  |

## EXPEDITION SWT 900 ACE / SKANDIC SWT 900 ACE

## Drive Pulley



|                          |      |
|--------------------------|------|
| Maximum<br>RPM $\pm$ 100 | 7300 |
|--------------------------|------|

### Driven Pulley

|                                               | Sea level<br>0 m (0 FT)   | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------------------------|---------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               |                           |                    |                     |                     |                     |                      |  |
|                                               |                           |                    |                     |                     |                     |                      |  |
| Spring                                        | Blue (P/N 417127118)      |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                       |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 47° - 40° (P/N 417127756) |                    |                     |                     |                     |                      |  |

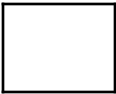
## EXPEDITION SWT 900 ACE TURBO

### Drive Pulley

**NOTE:** The factory calibration is suitable for all altitude. The turbocharger compensates for the lack of oxygen at high altitude.

|                             | Sea level<br>0 m (0 FT)     | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------|-----------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                             |                             |                    |                     |                     |                     |                      |  |
|                             |                             |                    |                     |                     |                     |                      |  |
| Spring                      | Blue/Purple (P/N 417224168) |                    |                     |                     |                     |                      |  |
| Ramp                        | 880 (P/N 417224290)         |                    |                     |                     |                     |                      |  |
| Engagement<br>RPM $\pm$ 100 | 2300                        |                    |                     |                     |                     |                      |  |
| Maximum<br>RPM $\pm$ 100    | 7300                        |                    |                     |                     |                     |                      |  |

### Driven Pulley



Sea level 600 m 1200 m 1800 m 2400 m 3000 m

|  |            |  |        |        |        |        |        |
|--|------------|--|--------|--------|--------|--------|--------|
|  | 0 m (0 FT) |  | 00 FT) | 00 FT) | 00 FT) | 00 FT) | 00 FT) |
|  |            |  |        |        |        |        |        |

|                                               |                           |
|-----------------------------------------------|---------------------------|
| Spring                                        | Blue (P/N 417127118)      |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                       |
| Cam angle (degrees)                           | 47° - 40° (P/N 417127756) |

## GRAND TOURING LTD 900 ACE TURBO

### Drive Pulley

**NOTE:** The factory calibration is suitable for all altitude. The turbocharger compensates for the lack of oxygen at high altitude.

|                             | Sea level<br>0 m (0 FT)        | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------|--------------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                             |                                |                    |                     |                     |                     |                      |  |
| Spring                      | Red/Yellow (P/N 417224329)     |                    |                     |                     |                     |                      |  |
| Ramp                        | 880 (P/N 417224290)            |                    |                     |                     |                     |                      |  |
| Engagement<br>RPM $\pm$ 100 | 2700                           |                    |                     |                     |                     |                      |  |
| Maximum<br>RPM $\pm$ 100    | 7400 (Turbo)<br>7900 (Turbo R) |                    |                     |                     |                     |                      |  |

### Driven Pulley

|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  |                         |                    |                     |                     |                     |                      |  |
|  |                         |                    |                     |                     |                     |                      |  |
|  |                         |                    |                     |                     |                     |                      |  |

Spring

Green (P/N 417127137)

Spring tension

Kg  $\pm$  0.7 (lb  $\pm$  1.5) N/A

Cam angle (degrees) 47° - 40° (P/N 417127756)

## RENEGADE X 900 ACE TURBO/ RENEGADE X-RS 900 ACE TURBO/

# RENEGADE ADRENALINE 900 ACE TURBO/ RENEGADE ENDURO 900 ACE TURBO

## Drive Pulley

**NOTE:** The factory calibration is suitable for all altitude. The turbocharger compensates for the lack of oxygen at high altitude.

|                             | Sea level<br>0 m (0 FT)        | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------|--------------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                             |                                |                    |                     |                     |                     |                      |  |
| Spring                      | Purple/Blue (P/N 417224165)    |                    |                     |                     |                     |                      |  |
| Ramp                        | 880 (P/N 417224290)            |                    |                     |                     |                     |                      |  |
| Engagement<br>RPM $\pm$ 100 | 2700                           |                    |                     |                     |                     |                      |  |
| Maximum<br>RPM $\pm$ 100    | 7400 (Turbo)<br>7900 (Turbo R) |                    |                     |                     |                     |                      |  |

## Driven Pulley

|                                               | Sea level<br>0 m (0 FT)   | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------------------------|---------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               |                           |                    |                     |                     |                     |                      |  |
| Spring                                        | Green (P/N 417127137)     |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                       |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 47° - 40° (P/N 417127756) |                    |                     |                     |                     |                      |  |

# MACH Z 900 ACE TURBO

## Drive Pulley

**NOTE:** The factory calibration is suitable for all altitude. The turbocharger compensates for the lack of oxygen at high altitude.

|  | Sea level<br>0 m (0 FT) | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|--|-------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|  |                         |                    |                     |                     |                     |                      |  |

|        |                             |  |  |  |  |  |
|--------|-----------------------------|--|--|--|--|--|
|        |                             |  |  |  |  |  |
| Spring | Purple/Blue (P/N 417224165) |  |  |  |  |  |
| Ramp   | 897 (P/N 417224633)         |  |  |  |  |  |

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Engagement RPM  $\pm$  100

3200

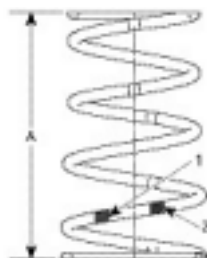
|                          |      |
|--------------------------|------|
| Maximum<br>RPM $\pm$ 100 | 7900 |
|--------------------------|------|

## Driven Pulley

|                                               | Sea level<br>0 m (0 FT)   | 600 m<br>(2000 FT) | 1200 m<br>(4000 FT) | 1800 m<br>(6000 FT) | 2400 m<br>(8000 FT) | 3000 m<br>(10000 FT) |  |
|-----------------------------------------------|---------------------------|--------------------|---------------------|---------------------|---------------------|----------------------|--|
|                                               |                           |                    |                     |                     |                     |                      |  |
|                                               |                           |                    |                     |                     |                     |                      |  |
| Spring                                        | Green (P/N 417127137)     |                    |                     |                     |                     |                      |  |
| Spring tension<br>Kg $\pm$ 0.7 (lb $\pm$ 1.5) | N/A                       |                    |                     |                     |                     |                      |  |
| Cam angle (degrees)                           | 47° - 40° (P/N 417127756) |                    |                     |                     |                     |                      |  |

## OPTIONAL DRIVE PULLEY SPRING RATES AND SPECIFICATIONS

The springs for TRA pulleys can not be installed on eDrive II or eDrive II LC.



TYPICAL - COLOR CODE

1. 1 color  
2. 2 color

## eDrive II (900 ACE) and eDrive II LC (600 ACE)

| Spring specifications |           |             |                              |                                 |            |
|-----------------------|-----------|-------------|------------------------------|---------------------------------|------------|
| Part number           | wire dia. | Free lenght | load $\pm$ 10%<br>when "a" = | load $\pm$ 10%<br>when "a" = 28 | color code |

|           |      |       | 60.6 mm |     | mm  |     |               |
|-----------|------|-------|---------|-----|-----|-----|---------------|
|           | mm   |       | N       | Lbs | N   | Lbs |               |
| 417223745 | 4.50 | 97.9  | 356     | 80  | 667 | 150 | Red / Red     |
| 417223747 | 4.30 | 108.0 | 356     | 80  | 600 | 135 | Red / White   |
| 417223748 | 4.80 | 87.3  | 355     | 80  | 789 | 177 | Red / Yellow  |
| 417223749 | 4.80 | 84.3  | 355     | 80  | 845 | 190 | Red / Orange  |
| 417223750 | 5.0  | 80.5  | 355     | 80  | 934 | 210 | Red / Green   |
| 417224084 | 4.50 | 105.4 | 489     | 110 | 845 | 190 | Yellow / Pink |

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| Spring specifications |           |             |                                         |     |                                       |     |               |
|-----------------------|-----------|-------------|-----------------------------------------|-----|---------------------------------------|-----|---------------|
| Part number           | wire dia. | Free lenght | load $\pm$ 10%<br>when "a" =<br>60.6 mm |     | load $\pm$ 10%<br>when "a" = 28<br>mm |     | color code    |
|                       | mm        |             | N                                       | Lbs | N                                     | Lbs |               |
| 417224085             | 4.30      | 120.0       | 446                                     | 100 | 690                                   | 155 | Yellow / Blue |

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