



Quality Gear for Life

Shuttle Xtreme

Cable Xtreme Service Kit

PN:156309

Made in the USA
Seattle Manufacturing Corporation
6930 Salashan Parkway
Ferndale, Washington 98248
800.426.6251 | www.smcgear.net

WARNING

- DO NOT ATTEMPT THIS PROCEDURE UNLESS YOU HAVE BOTH THE KNOWLEDGE AND THE AUTHORITY TO SERVICE THIS PULLEYS.
- READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE SERVICING THE SMC SHUTTLE XTREME.
- YOU COULD BE KILLED OR SERIOUSLY INJURED IF YOU DO NOT READ AND UNDERSTAND THE USER INSTRUCTION BEFORE USING THIS PIECE OF EQUIPMENT.
- SPECIAL TRAINING AND KNOWLEDGE ARE REQUIRED TO USE THIS EQUIPMENT.
- YOU MUST THOROUGHLY READ AND UNDERSTAND ALL MANUFACTURER'S INSTRUCTIONS BEFORE USE.
- USE AND INSPECT THIS EQUIPMENT ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.
- ALWAYS WEAR EYE PROTECTION WHEN SERVICING PULLEYS.

XTREME PERFORMANCE

Read and Understand these instructions before servicing the SMC Shuttle Xtreme.

The bearing assemblies on the SMC Shuttle Xtreme can be replaced by the user to maintain peak performance. Bearings must be replaced if they do not turn smoothly or if they have excessive wobble/side play that allows sheaves to hit frame of pulley.

XTREME REBUILD KIT (Single Unit Rebuild)

- QTY 2 - Axle
- QTY 2 - Axle Spacer
- QTY 2 - Snap Ring
- QTY 2 - Ball Bearing Assemblies
- QTY 4 - Lock Washer
- QTY 4 - Button Screw

TOOLS REQUIRED

- Hex Wrench
- Snap Ring Pliers
- Xtreme Wrench



STEP 1: INSPECTION

The bearing assemblies can be replaced in the SMC Xtreme, but eventually the frame of the pulley will wear to the point where it needs to be retired. It is important to check the frame for wear that indicates the pulley has reached the end of its useful life.

FRAME INSPECTION: Use special notch on supplied Xtreme wrench to check web dimensions at each of the circled locations on both sides of the



frame. Excessive wear at any of these locations compromises the strength of the pulley. If any web dimension is worn so that notch tool fits, the entire pulley must be retired.

Continue to inspect frame for internal wear caused by sheave rubbing, burrs, corrosion, cracks and bent areas. Light corrosion and burrs can be cleaned or sanded and then protected from further corrosion with a preservative such as WD40 or LPS1.

SHEAVE INSPECTION: Check sheave for sharp edges or excessive deformation that may develop from extended use on cable or from bearings that are excessively worn allowing the sheave to hit and damage pulley frame. If this type of damage is found then the entire pulley must be retired and not put back into service.

STEP 2: BEARING REPLACEMENT

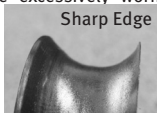
Insert Xtreme wrench between pulley sheave and frame as shown. Rotate wrench until it seats on axle fastener (see inset) and then use hex wrench to remove screws. Remove sheave assemblies from frame and remove axle and spacer from bearing.



Using snap ring pliers provided, remove snap ring that holds bearing into place and remove bearing. Occasionally dirt or corrosion may cause the bearing to stick in sheave. If this is the case, temporarily reinstall the used axle and tap it lightly to dislodge bearing. Discard bearing, snap ring, screws, washers, axle and axle spacer. It is not safe to reuse these parts. Retaining only the Sheave.



Now that the sheave is fully removed and accessible, reinspect sheave for sharp edges, cracks and ovalization that may develop from extended use on cable or from bearings that are excessively worn allowing the sheave to hit and damage pulley frame. If this type of damage is found then the entire pulley must be retired and not put back into service.



STEP 3: REASSEMBLY

Wipe down sheaves and frame to remove dirt and other foreign materials. On each sheave use the protrusion at end of wrench to clean snap ring groove so that new snap ring will seat fully into groove.



On each sheave insert new bearing past snap ring groove and up against shoulder. Using snap ring pliers, install new snap ring into groove. Ensure that ring is completely in groove around the full circumference of bearing.



Install a new axle into either side of bearing on each sheave and fit a new spacer on the opposite side. Slide the complete assembly into the frame and align axle with axle holes in center of pattern.



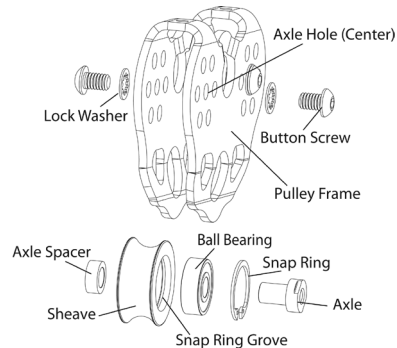
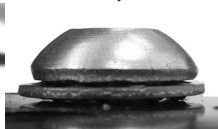
For each side of each axle, install new lock washers on new screws with nylon locking patch and then install them into axle.

Insert Xtreme wrench onto axle between sheave and frame. Tighten each screw with hex wrench until lock washers are completely compressed between screw head and pulley frame and screw is tight to side-plate leaving no gaps (see images below). Continue tightening each screw until all screws are completely tight. If torque wrench is available, torque each screw to at least 80 in/lbs. of torque.

Accept



Reject



STEP 4: INSPECTION BEFORE RETURNING TO SERVICE

Check for free turning of sheave on bearing.

Check that sheave is visually centered in frame and cannot be made to hit side plate if pushed to one side or the other.

Check tightness of screws.

Recheck frame for excessive wear, cracks or sharp edges as was done in Step 1.

Complete record in Inspection and Maintenance Log.

To view or download an example of the SMC Xtreme Maintenance Log got to www.SMCgear.net.

Log ID	Pulley ID	Date	Inspector	Inspection				Measurements after Inspection				Disposition	Date		
				Visual	Free Turn	Side Plate	Screws	Sheave	Bearing	Frame	Screws				
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail
				Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail	Pass / Fail

Ask your local dealer about our Xtreme Rebuild Pack (tools not included) that allow you to repair up to 10 pulleys. PN:156308

If you do not completely understand any of the outlined user instruction provided on this sheet or if you have any questions please contact SMC at 360-366-5534 or info@smcgear.net.