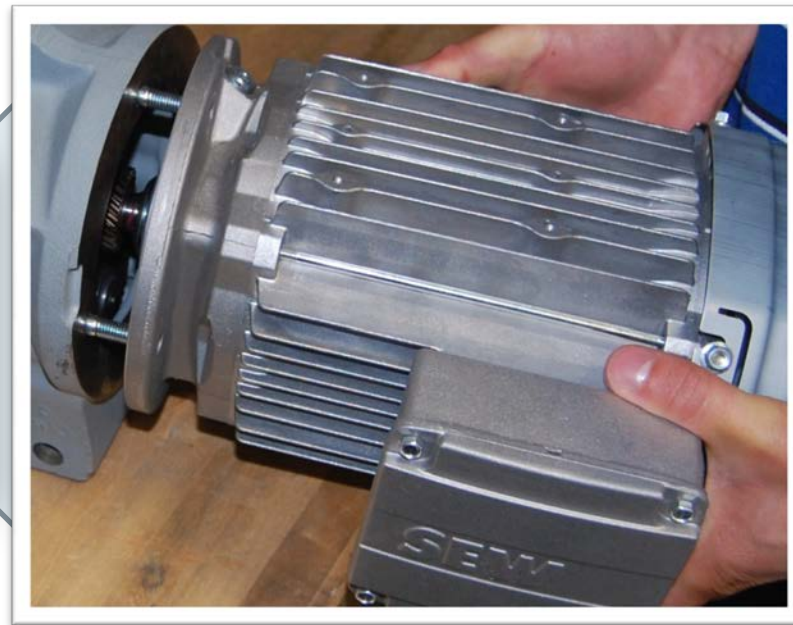
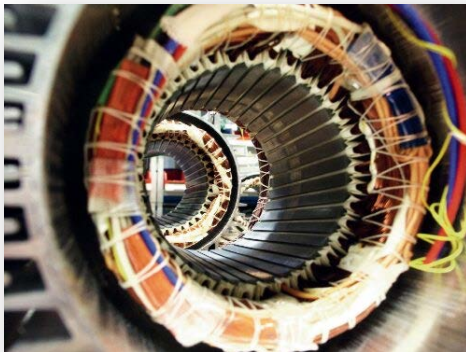


Service and Maintenance – SEW Motor Replacement



Service and Maintenance – SEW Motor Replacement

The following presentation will guide you through the safe and proper steps needed to replace a SEW motor –

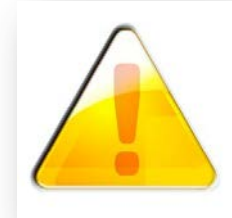
- Safety
- Required tooling
- Preparing to remove a motor
- Removing a motor from a reducer
- Preparing to install a new motor
- Installing a new motor



Service and Maintenance – SEW Motor Replacement

Safety First

1. Never perform any work that you are either unqualified for or feel uncomfortable doing
2. Follow all local safety guidelines
3. Never perform work on equipment that is connected to a power source or energized
4. Always use the proper tooling
5. Make use of all required PPE or Personal Protective Equipment



Service and Maintenance – SEW Motor Replacement

Required Tooling

Chisel		Dead blow hammer	
Aqueous cleaner (Degreasing agent)		File	
Metric box wrench		Non-shedding rags	
Metric allen wrench		Torque wrench	
Waste oil container		Loctite 574	
Flat hone stone		Loctite 5188	

Service and Maintenance – SEW Motor Replacement

Motor Removal Preparation

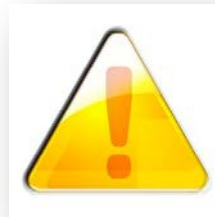
1. Disconnect all power sources



Service and Maintenance – SEW Motor Replacement

Motor Removal Preparation

2. Remove power cables from motor



Service and Maintenance –

SEW Motor Replacement

Motor Removal Preparation

3. Using the appropriate allen wrench, remove the oil plugs at the lowest and highest point on the reducer/motor to completely drain the oil from the reducer.



Unit Size	Allen Size
07 – 67	5mm
77 - 87	6mm
97 – 107	10mm
127 - 147	17mm
157 - 187	22mm

Service and Maintenance – SEW Motor Replacement

Motor Removal Preparation

4. Secure the motor with proper rigging equipment to remove the motor if its size/position exceeds the local safety regulations for lifting/bending.



Service and Maintenance – SEW Motor Replacement

Motor Removal

5. Loosen (do not remove) **all** the nuts/bolts that fix the motor to the gear reducer



Unit Size	Wrench Size
07 – 37	10mm
47 – 67	13mm
77 – 87	17mm
97 - 107	19mm
127 - 187	24mm

Service and Maintenance – SEW Motor Replacement

Motor Removal

6. Remove all of the nuts/bolts that fix the motor to the gear reducer **except** the top one (i.e. the one farthest from the ground).



Service and Maintenance – SEW Motor Replacement

Motor Removal

7. Locate the recessed pry-points on the reducer and place the tip of the chisel into the recess. Tap the chisel to loosen the motor flange from the reducer. ***Do not hit any part of the motor with the hammer.***

Note: The sealant between the motor and the reducer creates a strong bond; therefore, the need to break the seal will require watchful effort.



Service and Maintenance – SEW Motor Replacement

Motor Removal

8. After the motor is broken free from the reducer, remove the top nut/bolt and gently remove the motor from the reducer.



Service and Maintenance – SEW Motor Replacement

Motor Installation Preparation

If the replacement motor was ordered **without** a new pinion, please refer to the *Motor pinion removal and installation* instructions found at the following link:

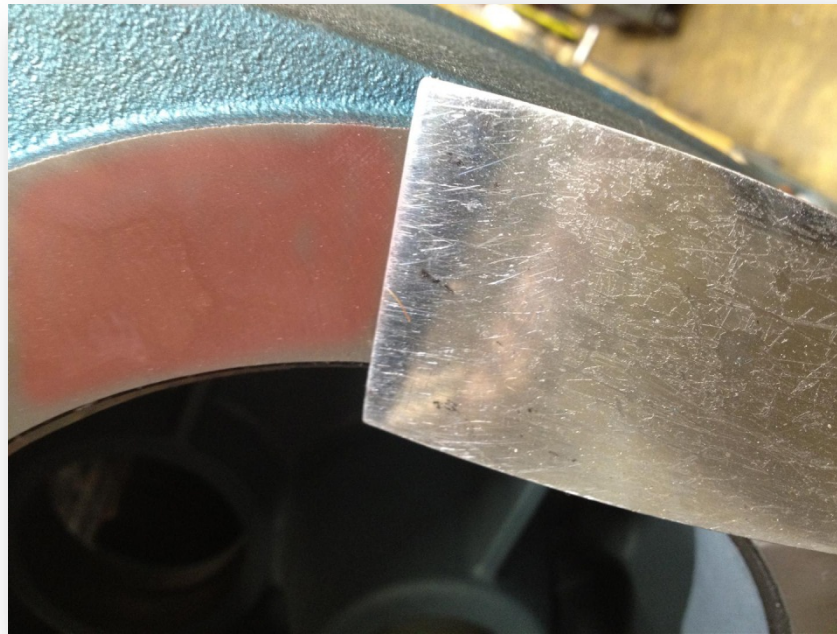
http://www.seweurodrive.com/s_service/index.php5



Service and Maintenance – SEW Motor Replacement

Motor Installation Preparation

10. Scrape off any old Loctite from the reducer flange. ***Take care not to contaminate the reducer with any debris.***



Service and Maintenance – SEW Motor Replacement

Motor Installation Preparation

11. Check for any burrs or imperfections using the hone stone and repair them with the file. ***Take care not to contaminate the reducer with metal filings.***



Service and Maintenance – SEW Motor Replacement

Motor Installation Preparation

12. Clean the surface of the reducer flange **again**, using an aqueous degreasing cleaner.



Service and Maintenance – SEW Motor Replacement

Motor Installation Preparation

13. Apply the proper Loctite to the flange of the **reducer**.



Use Loctite **574** for all applications **except** F107/R97/R107 reducers

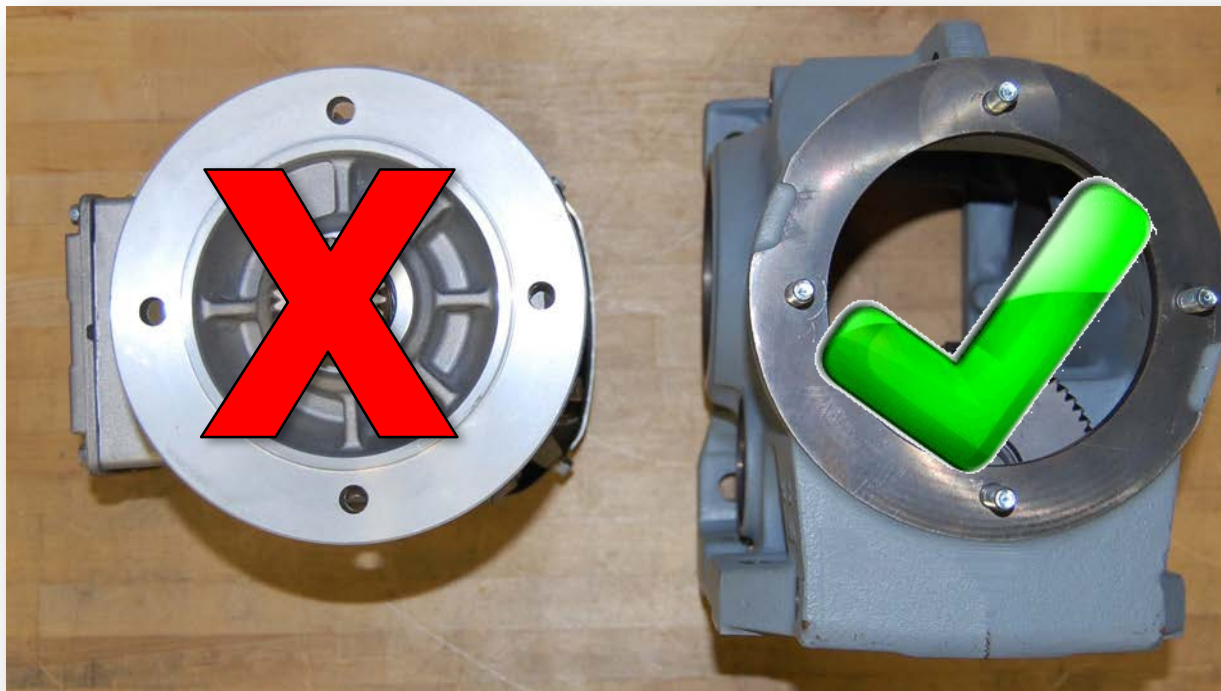


Only use Loctite **5188** for F107/R97/R107 reducers

Service and Maintenance – SEW Motor Replacement

Motor Installation Preparation

14. Always apply the Loctite to the **reducer** surface and never to the motor surface.



Service and Maintenance – SEW Motor Replacement

Motor Installation Preparation

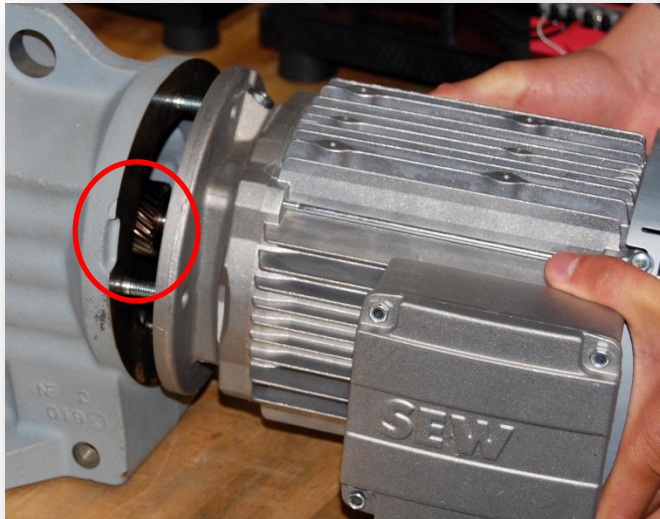
Always apply the Loctite in a 2-3mm bead, looping all bolt holes and cutouts.



Service and Maintenance – SEW Motor Replacement

Motor Installation

15. Place the motor onto the bottom stud at an angle and gently slide it into place.



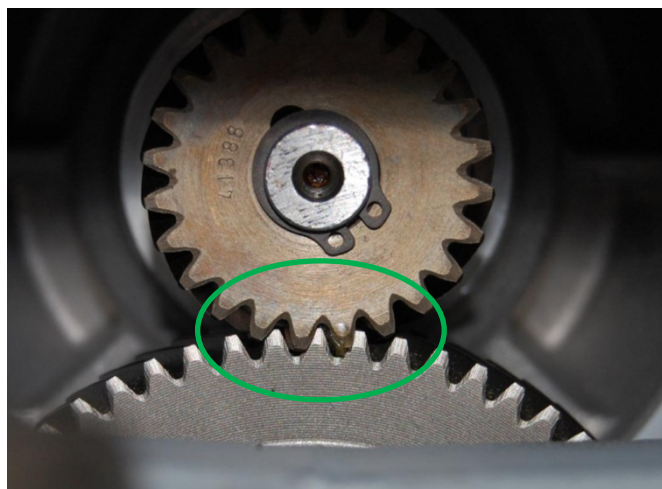
Never force the motor into the final position before the pinion and front gear wheel have properly engaged.

Otherwise damage will occur.

Service and Maintenance – SEW Motor Replacement

Motor Installation

Installing the motor at an angle enables the gear teeth to mesh properly.



Service and Maintenance – SEW Motor Replacement

Motor Installation

16. Install the bolts/nuts onto the reducer motor flange assembly.



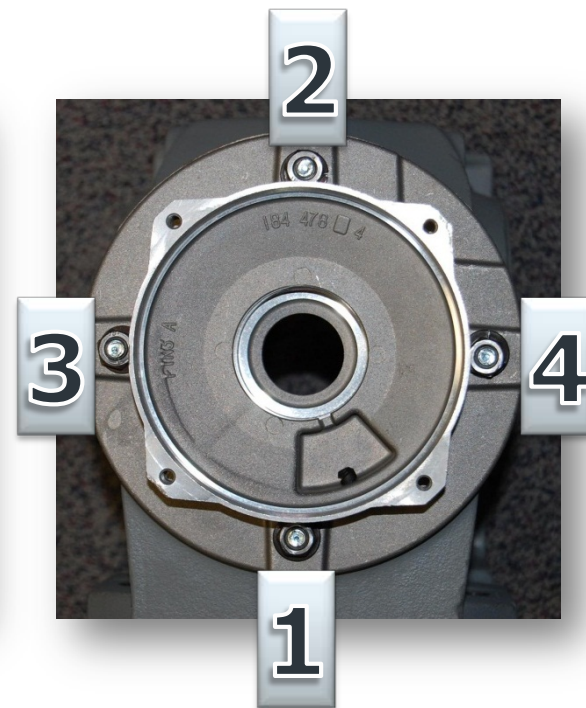
Lock washers are used **only** when the motor flange is aluminum.

Service and Maintenance – SEW Motor Replacement

Motor Installation

17. Tighten the nuts/bolts to the proper torque setting in a diametrically opposed pattern, as shown. Always start at the point closest to the mounting feet of the reducer.

Thread Size	Torque [lb-ft]
M6	9
M8	20
M10	40
M12	69
M16	170



Service and Maintenance – SEW Motor Replacement

Motor Installation

18. Wipe away excess Loctite using a rag and aqueous cleaner



Service and Maintenance – SEW Motor Replacement

Motor Installation

19. Reinstall bottom plug and fill with oil to the proper level. Then, install the top plug.



Service and Maintenance – SEW Motor Replacement

Motor Installation

20. Reconnect the power to the new motor.



Service and Maintenance – SEW Motor Replacement

For more information on this and other service and maintenance topics, please visit our website below:

www.seweurodrive.com/s_service/index.php5

