

Service Manual

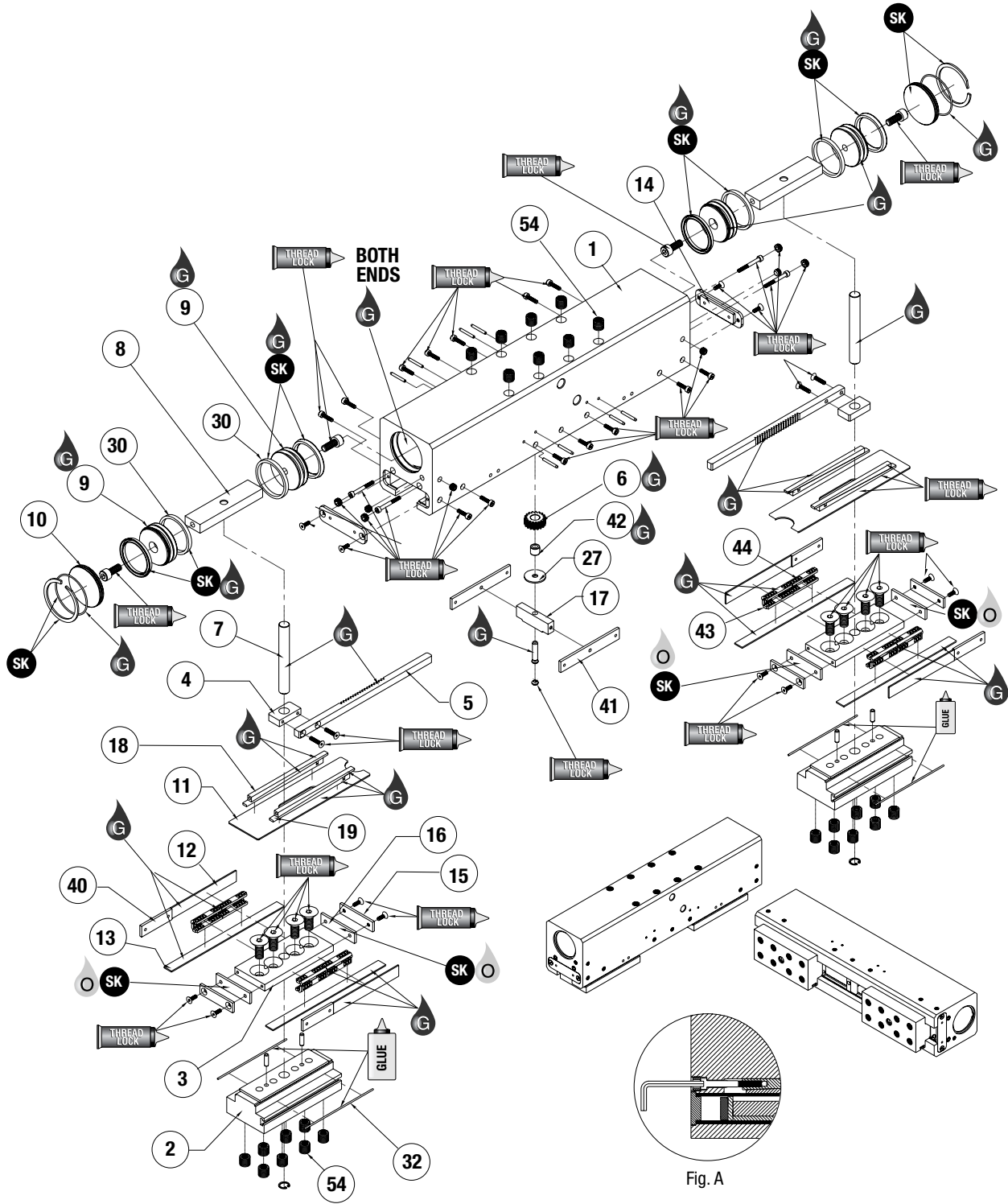
ROBOHAND | RPB Series



WARNING: This is a controlled document. It is your responsibility to deliver this information to the end user of the Destaco Robohand product. Failure to deliver this could result in your liability for injury to the user or damage to the machine. For copies of this manual, call your Customer Service Representative at 1.248.836.6700

RPB SERIES

Parallel Grippers | Maintenance and Assembly Procedure



Seal Kit Items



Thread Locker



Krytox™ Lubricant



Lightweight Machine Oil



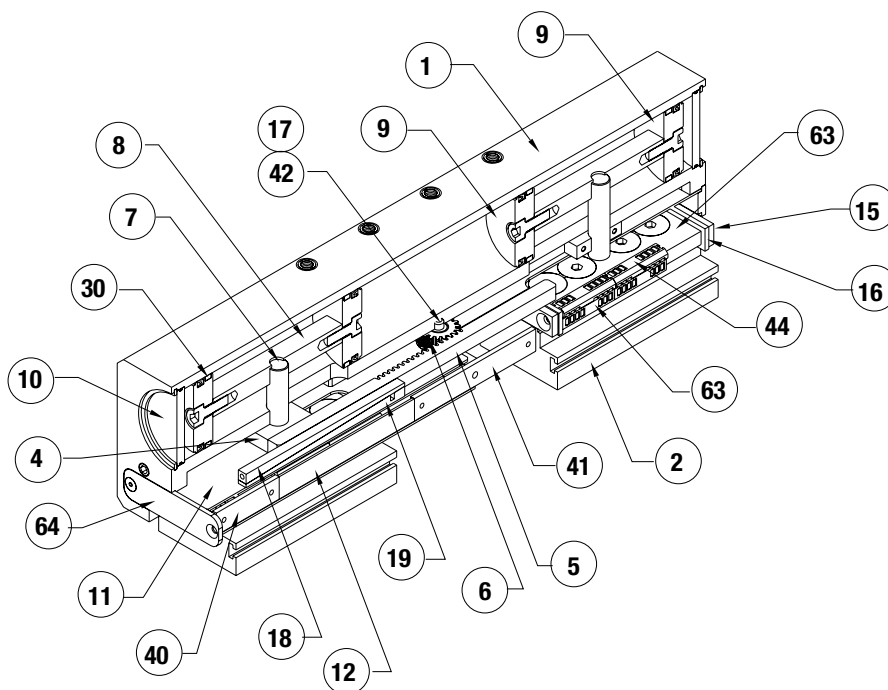
Teflon® Based Grease



Super Bonder



Third Angle Projection



Item	Qty	Name
01	1	Body
02	2	Jaw
04	2	Rack Bracket
05	2	Rack
06	1	Gear, Pinion
07	2	Drive Pin
08	2	Bridge, Piston
09	4	Piston
10	2	Cap
11	2	Way Plate, Large
12	4	Way Plate, Side
13	4	Way Plate, Lower
15	4	Wiper Support
16	4	Wiper
17	1	Center Support
18	4	Wedge, Preload, Tapped
19	4	Wedge, Preload
27	1	Cover, Pinion
30	4	Wearband, Nylon
32	4	Seal, Jaw
40	4	Cage Stop, End
41	2	Cage Stop, Center
42	1	Bearing, Needle
43	8	Cage & Roller Bearing Assy
44	8	S'assy, Full Half Cage Roller
54	24	Threaded Insert
63	2	Support Rail, Jaw
64	2	Rail Cap

NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

SK Seal Repair Kit Order #'s See Product Data Sheets

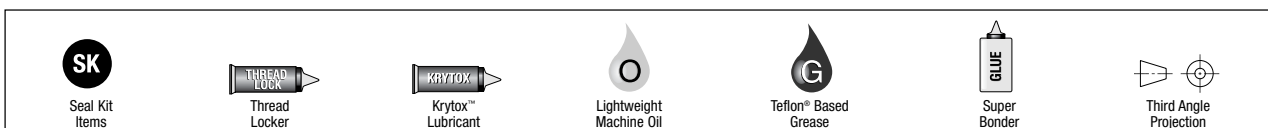
Assembly Procedure:

- 1) Lubricate and install seals, assemble pistons.
- 2) Install piston assemblies in bore, caps and retaining rings.
- 3) Install cross port plugs and dowel pins in body
- 4) Install and lubricate pre-load wedges, install adjustment screws and hollow-locks in body.
- 5) Install and lubricate sync. racks in body, align with piston assemblies.
- 6) Install and lubricate way plates.
- 7) Install and lubricate center pin, sync. gear*, bearing*, pinion cover and install center support and ret. ring.
- 8) Install and lubricate one end plate temporarily.
- 9) Assemble jaws and jaw backer plates, glue jaw seals in place and lubricate.
- 10) Install and lubricate one wiper and wiper support on each jaw (on inboard side only).
- 11) Install jaw and roller cage assemblies (lubricate bearings) in body on side opposite installed end plate.
- 12) Install and lubricate other wiper and wiper backer on jaw.
- 13) Install end plate, remove other temporarily installed end plate.
- 14) Install other jaw, rollers, (as in step 11) and end plate.
- 15) Align jaws with piston/rack assemblies.
- 16) Install and lubricate drive pins and install ret. rings.
- 17) Install threaded inserts.
- 18) Adjust preload.

Non-Repairable Item List: None

Roller Bearing Preload Instructions (Per Jaw):

- Note:**
Insert preload wrench as shown in fig. A
- a) To add preload: turn preload screws counter clockwise.
 - b) To remove preload: turn preload screws clockwise.
- 1) Remove all preload from bearings.
 - 2) Remove way end cap from body.
 - 3) Remove outer wiper support.
 - 4) Pull jaw to end of body.
 - 5) Using small hex wrench, push on bearing cages to check for "skidding". Bearings should skid with moderate amount of force.
 - 6) Incrementally tighten preload screws evenly until there is no more "skidding".
 - 7) Back off preload until bearings just "skid".
 - 8) Re-assemble end cap and wiper support.
 - 9) Repeat process for other jaw.



RPB-S SERIES

Parallel Grippers | Maintenance and Assembly Procedure

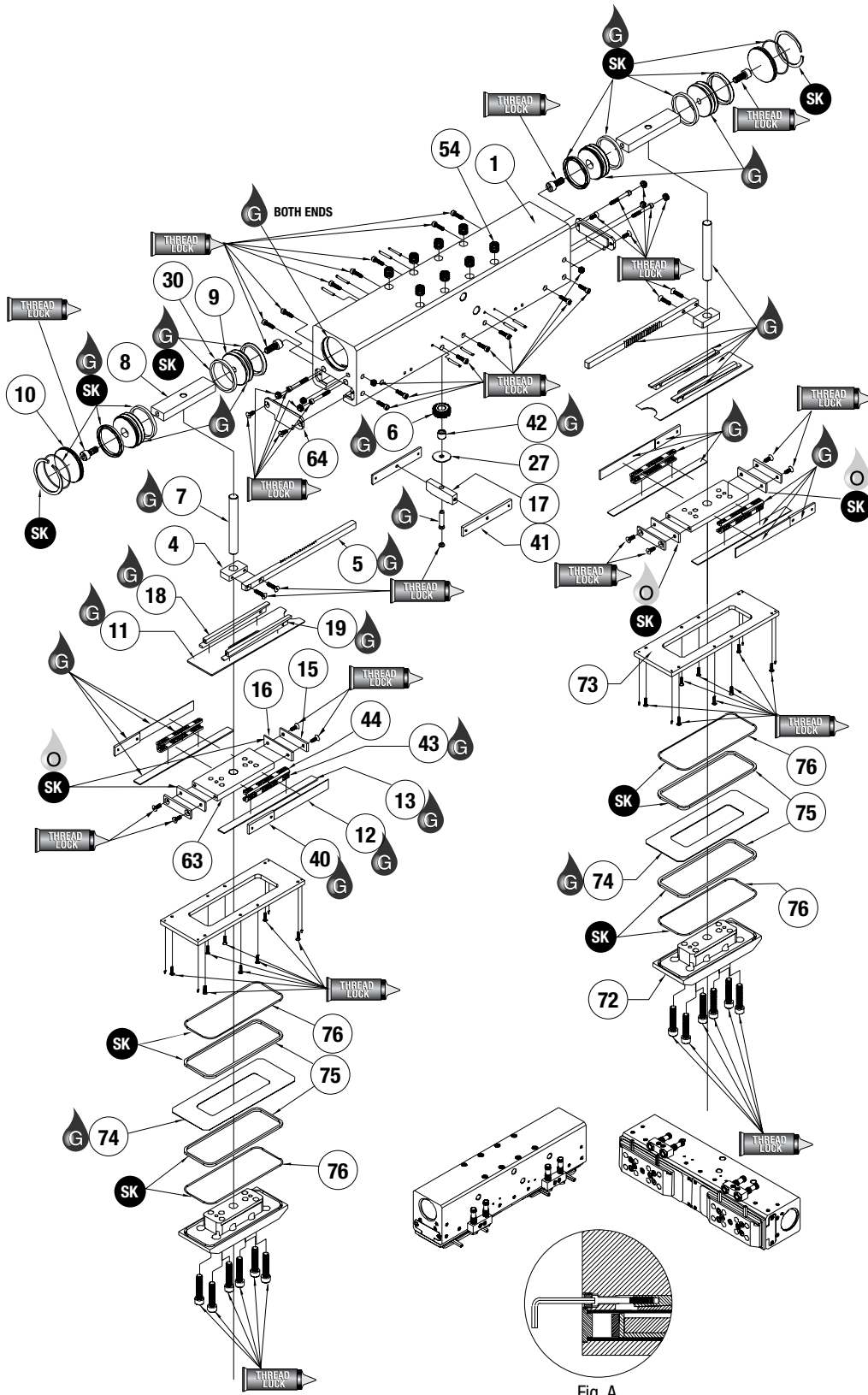
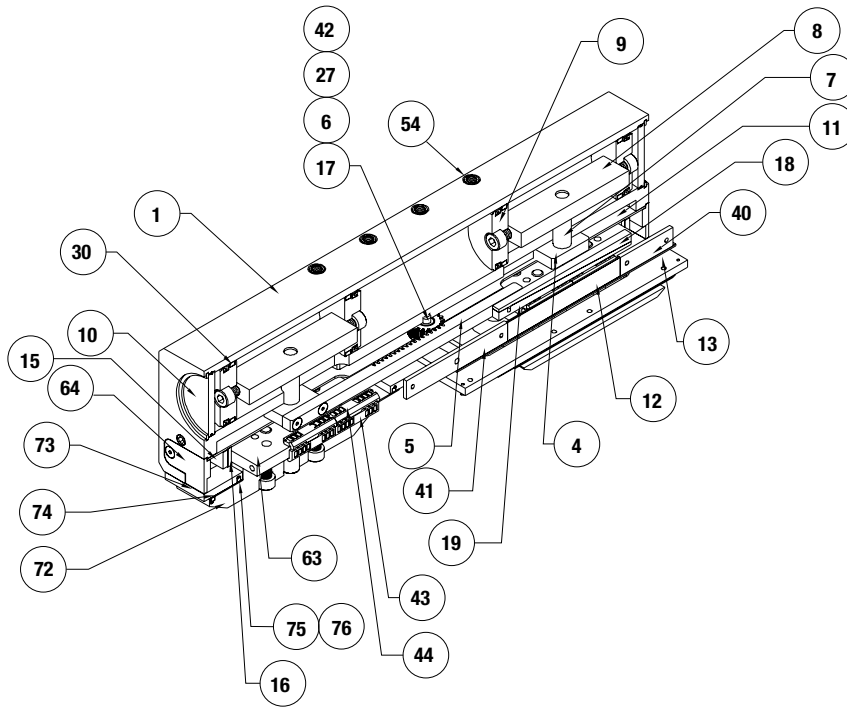


Fig. A

SK Seal Kit Items	THREAD LOCK Thread Locker	KRYTOX Krytox™ Lubricant	O Lightweight Machine Oil	G Teflon® Based Grease	GLUE Super Bonder	Third Angle Projection
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Item Qty	Name
01	1 Body
04	2 Rack Bracket
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06	1 Gear, Pinion
07	2 Drive Pin
08	2 Bridge, Piston
09	4 Piston
10	2 Cap
11	2 Way Plate, Large
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13	4 Way Plate, Lower
15	4 Wiper Support
16	4 Wiper
17	1 Center Support
18	4 Wedge, Preload, Tapped
19	4 Wedge, Preload
27	1 Cover, Pinion
30	4 Wearband, Nylon
40	4 Cage Stop, End
41	2 Cage Stop, Center
42	1 Bearing, Needle
43	8 Cage & Roller Bearing Assy
44	8 S'assy, Full Half Cage Roller
54	24 Threaded Inserts
63	2 Support Rail, Jaw
64	2 Rail Cap
72	2 Jaw Shielded
73	2 Shielded, Fixed
74	2 Shielded, Moveable
75	4 Seal, Wiper
76	4 Seal, Wiper

NOTE: Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.

SK Seal Repair Kit Order #'s See Product Data Sheets

Assembly Procedure:

- 1) Lubricate and install seals, assemble pistons.
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- 10) Install and lubricate one wiper and wiper support on each jaw (on inboard side only).
- 11) Install jaw and roller cage assemblies (lubricate bearings) in body on side opposite installed end plate.
- 12) Install and lubricate other wiper and wiper backer on jaw.
- 13) Install end plate, remove other temporarily installed end plate.
- 14) Install other jaw, rollers, (as in step 11) and end plate.
- 15) Align jaws with piston/rack assemblies.
- 16) Install and lubricate drive pins and install ret. rings.
- 17) Install threaded inserts.
- 18) Adjust preload.

Non-Repairable Item List: None

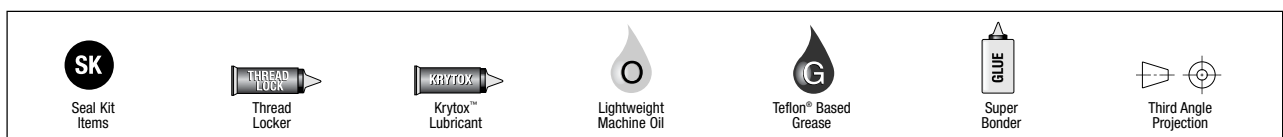
Roller Bearing Preload Instructions (Per Jaw):

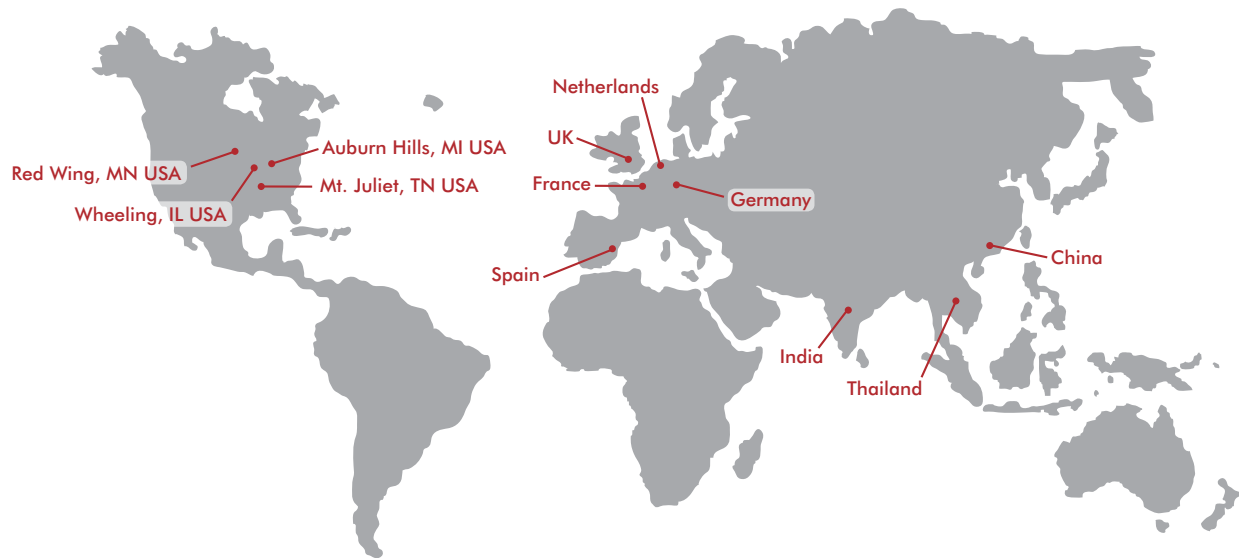
Note:

Insert preload wrench as shown in fig. A

- a) To add preload: turn preload screws counter clockwise.
- b) To remove preload: turn preload screws clockwise.

- 1) Remove all preload from bearings.
- 2) Remove way end cap from body.
- 3) Remove outer wiper support.
- 4) Pull jaw to end of body.
- 5) Using small hex wrench, push on bearing cages to check for "skidding". Bearings should skid with moderate amount of force.
- 6) Incrementally tighten preload screws evenly until there is no more "skidding".
- 7) Back off preload until bearings just "skid".
- 8) Re-assemble end cap and wiper support.
- 9) Repeat process for other jaw.





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