

Maintenance Guide

Low Profile Hydraulic Torque Wrench

TX Series Cylinder

TX-16, TX-32 & TX-45



*torcUp*TM

Maintenance Supplies




1. TX-16 Cylinder shown for demonstration purposes 2. Light grease 3. Breaker bar with 7/8" socket 4. 3/8" Ratchet
5. Long pry bar 6. Brass drift 7. 1/4" allen wrench 8. End plug removal wrench 9. 7/8" socket 10. 1" socket
11. Hammer (18oz.) 12. Dead blow hammer 13. Marine moly 14. Teflon tape

A close-up photograph of a dark grey hydraulic torque wrench being inserted into the jaws of a blue metal vise. The vise is mounted on a wooden workbench. The wrench is held in place by the vise's jaws, demonstrating its compact size. The background shows a white wall and a grey floor.

Place tool
in vise

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Place ¼" allen
wrench in 1st
swivel and remove

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Place ¼" allen
wrench in 2nd
swivel and remove

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Place end plug
removal wrench
into end cap



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Place 7/8"
socket, with
breaker bar,
on top of end
plug removal
wrench and
loosen end cap

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End cap after
removal

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Place 1" socket
on top of
piston cap

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Place breaker
bar into
socket and
loosen piston
cap



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Reposition tool in vise



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A close-up photograph of a mechanical assembly being worked on. A grey metal piston rod assembly is held in a grey bench vise mounted on a wooden workbench. A long, black pry bar is inserted into a hook-shaped opening on the piston rod. A person's hand, wearing a dark blue shirt, is holding the red handle of the pry bar. The background shows a white wall and a concrete floor.

Place long pry bar
into “hook” of the
piston rod

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Remove piston rod by tapping on pry bar with hammer

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Piston rod
after removal

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Re-position tool in
vise. Place rag in
vice to catch
pieces from
dropping. Using
long screwdriver,
hit down on
screwdriver to
remove piston cap

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Piston cap laying
in rag after removal

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Piston cap
with seal shown

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Clean and inspect
all parts



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Begin assembly by
placing piston
rod into brass bushing
and rod seal

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Hit down on piston rod
with dead blow hammer
until it reaches
position shown.
Place tool back in vise



Using light grease,
lubricate end cap and seal

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Place piston
cap in
tool bore



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Hit piston cap
down into bore,
using a dead blow
hammer, until it
makes contact with
the piston rod



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Tighten piston
cap onto piston
rod using a 1"
socket and
ratchet



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Using light grease,
lubricate end cap and seal

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Place end cap
into tool bore

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Place end plug
removal wrench
into end cap

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Tighten end cap
using the end
plug removal
wrench with a
7/8" socket and
ratchet



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Remove old teflon
tape and wrap
both swivels with
new tape



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Both swivels with new
teflon tape applied



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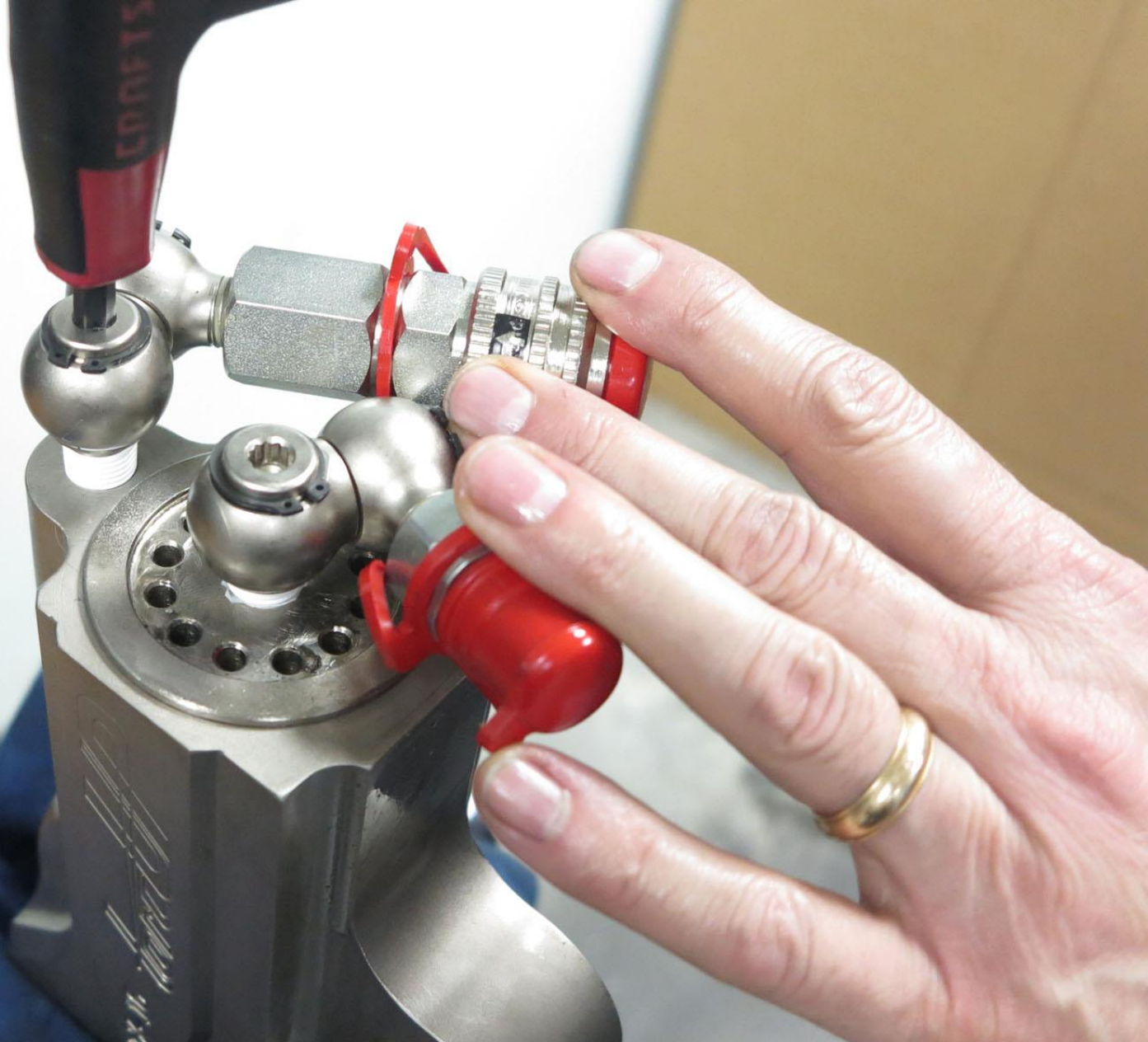
With ¼" allen wrench install swivel with male coupler into advance port (end plug)



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With ¼" allen wrench install swivel with female coupler into retract port (cylinder)



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TX-16 cylinder and ratchet link



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Remove link pin
from cylinder

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Place cylinder into
ratchet link.
Install link pin

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Assembly complete.
TX-16 cylinder and ratchet link
held together with link pin



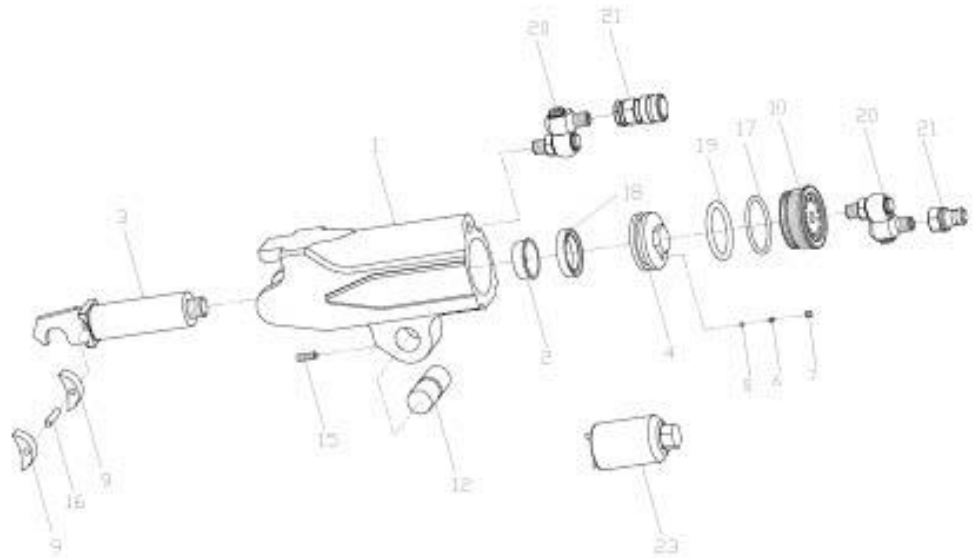
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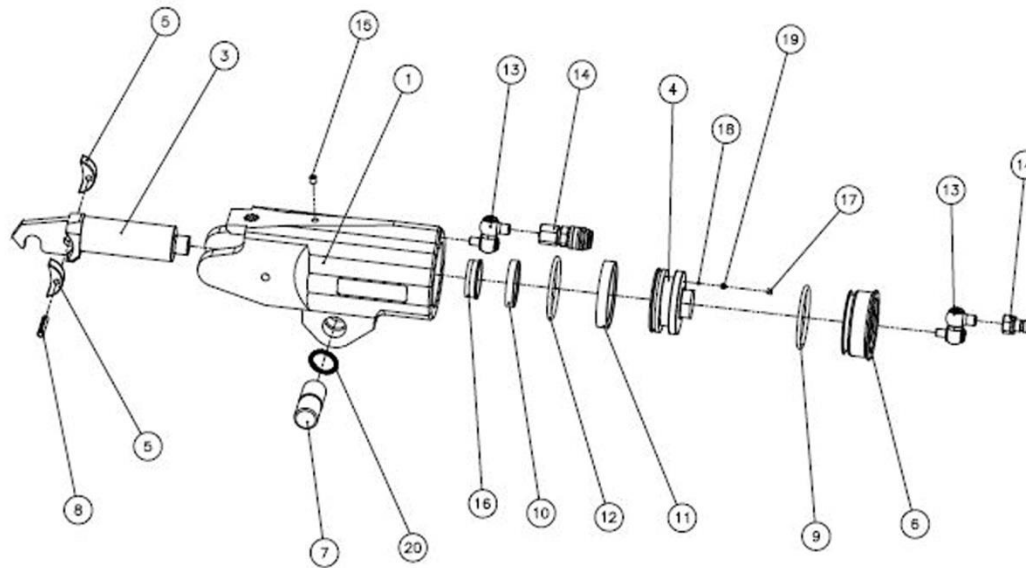
TX-16 and TX-32 SERIES CYLINDER Part Numbers

| Part | TX-16 | TX-32 |
|--------------------------|-------------|-------------|
| 1 HOUSING | TX-16-C01 | TX-32-C01 |
| 2 PISTON BRASS BUSHING | TX-16-C51 | TX-32-C51 |
| PISTON ROD ASSEMBLY | TX-16-C03 | TX-32-C03 |
| 3 PISTON ROD | TX-16-C03-1 | TX-32-C03-1 |
| 4 PISTON CAP | TX-16-C03-2 | TX-32-C03-2 |
| 5 VALVE BALL | TX-16-C03-3 | TX-32-C03-3 |
| 6 VALVE SPRING | TX-16-C03-4 | TX-32-C03-4 |
| 7 VALVE CUP | TX-16-C03-5 | TX-32-C03-5 |
| 9 SLIDER | TX-16-C09 | TX-32-C09 |
| 10 END CAP | TX-16-C11 | TX-32-C11 |
| 11 RETAINING RING | N/A | N/A |
| 12 LINK PIN | TX-16-C15 | TX-32-C15 |
| 13 END COVER | N/A | N/A |
| 14 END COVER SCREWS | N/A | N/A |
| 15 LINK RETAINING SPRING | TX-16-C53 | TX-32-C53 |
| 16 SLIDER PIN | TX-16-C27 | TX-32-C27 |
| 17 END PLUG SEAL | TX-16-C29 | TX-32-C29 |
| 18 ROD SEAL | TX-16-C31 | TX-32-C31 |
| 19 PISTON O-RING | TX-16-C33 | TX-32-C33 |
| 20 SWIVEL (2 Required) | STX-4M-4M | STX-4M-4M |
| 21 COUPLER ASSEMBLY | HC-S-100 | HC-S-100 |
| 22 SEAL INSERTION TOOL | N/A | N/A |
| 23 END PLUG WRENCH | ATX-16-EPW | ATX-32-EPW |

Cylinder Breakdown



TX-45 Cylinder Breakdown



| Part | TX-45 Part # | Part | TX-45 Part # |
|-----------------------|--------------|-----------------------|--------------|
| 1 HOUSING | TX-45-C01 | 11 PISTON O-RING | TX-45-C33 |
| 2 PISTON ROD ASSEMBLY | TX-45-C03 | 12 PISTON CUP SEAL | TX-45-C32 |
| 3 PISTON ROD | TX-45-C03-1 | 13 SWIVEL SET | STU-4M-4M |
| 4 PISTON | TX-45-C03-2 | 14 COUPLER SET | HC-S-100 |
| 5 SLIDER | TX-45-C09 | 15 PRESSURE PLUG | TX-45-C39 |
| 6 END CAP | TX-45-C11 | 16 ROD BUSHING | TX-45-C51 |
| 7 LINK PIN | TX-45-C15 | 17 VALVE CUP | TX-45-C03-5 |
| 8 SLIDER PIN | TX-45-C27 | 18 VALVE BALL | TX-45-C03-3 |
| 9 ENDPLUG SEAL | TX-45-C29 | 19 VALVE SPRING | TX-45-C03-4 |
| 10 ROD SEAL | TX-45-C31 | 20 CANTED COIL SPRING | TX-45-C53 |



You have just completed the
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For additional questions please contact:

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Refer to the tool manual for safety and regulations.