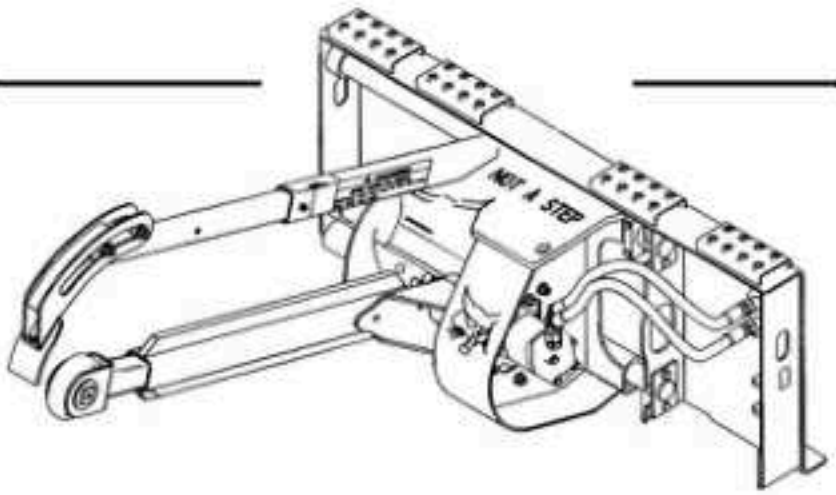
Trencher

LT112
MX112
LT113
LT213
LT313
LT414

Bobcat®

Service Manual

(LT112) S/N 045200101 & Above
(MX112) S/N 045100101 & Above
(LT113) S/N 233800101 & Above
(LT213) S/N 045300101 & Above
(LT313) S/N 045400101 & Above
(LT414) S/N A0RS00101 & Above



6903281 (5-08)

Printed in U.S.A.

© Bobcat Company 2008

MidWestTech | Bobcat LT112, MX112, LT113, LT213, LT313, LT414 Trencher Service Man... Order the manual at mid-west-tech.com >

ALPHABETICAL INDEX

ATTACHMENT DELIVERY REPORT III
AUGER 30-10-1

BOOM 30-50-1
BOOM END WHEEL (LT313 & LT414) 30-80-1
BOOM END WHEEL (LT112, MX112, LT113 & LT231) 30-90-1

DIGGING CHAIN 30-20-1
DRIVE SPROCKET 30-40-1

GLOSSARY OF HYDRAULIC SYMBOLS FOR ATTACHMENTS SPEC-40-1
GREASE CYLINDER 30-60-1

HEAD SHAFT 30-30-1
HYDRAULIC MOTOR (LT112, MX112, MT113 & LT213) 20-20-1
HYDRAULIC MOTOR (LT313) 20-21-1
HYDRAULIC MOTOR (LT414) 20-22-1
HYDRAULIC SCHEMATIC SPEC-30-1

INSPECTION 10-20-1
IDENTIFICATION IV

SERIAL NUMBER LOCATION III
SIDE SHIFT BARS 30-70-1
SIDE SHIFT CONTROL VALVE 20-30-1
SIDE SHIFT CYLINDER 20-10-1
SPECIFICATIONS SPEC-10-1

TRENCH CLEANER 10-30-1
TROUBLESHOOTING 10-10-1

MidWestTech | Bobcat LT112, MX112, LT113, LT213, LT313, LT414 Trencher Service Man... Order the manual at mid-west-tech.com >

CONTENTS

SERIAL NUMBER LOCATION III

ATTACHMENT DELIVERY REPORT III

IDENTIFICATION AND MACHINE SIGNS (DECALS) IV

SAFETY AND MAINTENANCE. 10-01

HYDRAULIC SYSTEM 20-01

MAIN FRAME 30-01

SPECIFICATIONS AND SCHEMATICS SPEC-01

CALIFORNIA
PROPOSITION 65 WARNING

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

MidWestTech | Bobcat LT112, MX112, LT113, LT213, LT313, LT414 Trencher Service Man... Order the manual at mid-west-tech.com >

Torque Specifications

Always clean and dry the threads on the cylinder rod and the piston nut. ***Do not oil the threads***. Use a new piston nut when available. Always use the correct nut part number shown below. When a nut is reused, thoroughly clean the pre applied locking agent from the nut. Apply LOCTITE 242 adhesive on the threads.

To determine the proper tightening torque, find the piston nut part number or thread diameter, shaft diameter and piston material. Measure the thread diameter to find the nut part number.

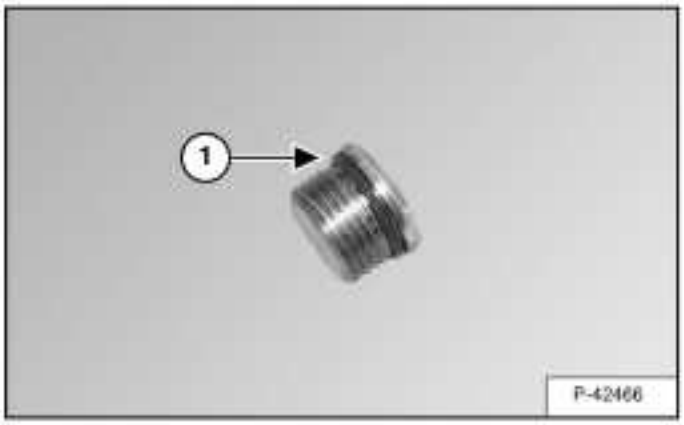
When servicing an older cylinder that uses a pre-torque nut, clean the threads and apply LOCTITE 242 adhesive.

PART NO.	THREAD SIZE	SHAFT DIAMETER	PISTON MATERIAL	TORQUE FT.-LB.	TORQUE N-M
92D-10	0.625 inch	1.0 inch	Aluminum	90	122
92D-10	0.625 inch	1.0 inch	Gray iron	90	122
92D-12	0.750 inch	1.0 inch	Aluminum	105	142
92D-12	0.750 inch	1.0 inch	Gray iron	105	142
92D-12	0.750 inch	1.250 inch	Aluminum	180	244
92D-12	0.750 inch	1.250 inch	Gray iron	180	244
92D-12	0.750 inch	1.50 inch	Aluminum	180	244
92D-14	0.875 inch	1.250 inch	Gray iron	300	407
92D-14	0.875 inch	1.250 inch	Aluminum	250	339
92D-14	0.875 inch	1.375 inch	Aluminum	250	339
92D-14	0.875 inch	1.375 inch	Gray iron	350	475
92D-14	0.875 inch	1.50 inch	Gray iron	350	475
92D-14	0.875 inch	1.750 inch	Gray iron	350	475
92D-16	1.0 inch	1.375 inch	Gray iron	600	814
92D-16	1.0 inch	1.50 inch	Gray iron	600	814
6804592	1.125 inch	1.50 inch	Aluminum	350	475
6804592	1.125 inch	1.50 inch	Gray iron	850	1153
6804593	1.125 inch	1.625 inch	Gray iron	850	1153
6804592	1.125 inch	1.750 inch	Gray iron	850	1153
6810540	1.250 inch	1.750 inch	Gray iron	850	1153
6810540	1.250 inch	2.0 inch	Gray iron	1000	1356

MidWestTech | Bobcat LT112, MX112, LT113, LT213, LT313, LT414 Trencher Service Man... Order the manual at mid-west-tech.com >

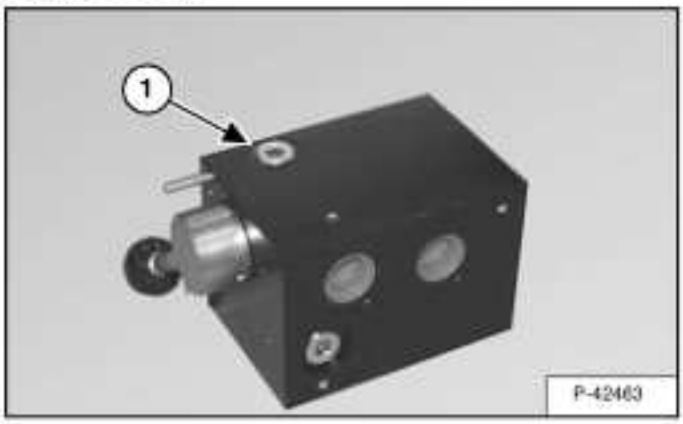
Assembly (Cont'd)

Figure 20-30-39



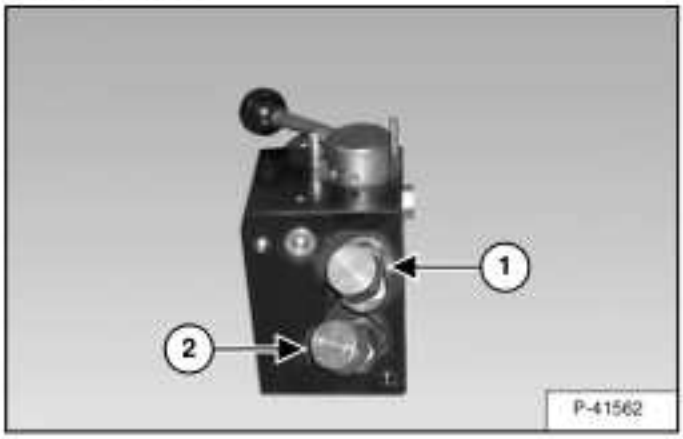
Install o-ring (Item 1) **[Figure 20-30-39]**.

Figure 20-30-40



Install plug (Item 1) **[Figure 20-30-40]**.

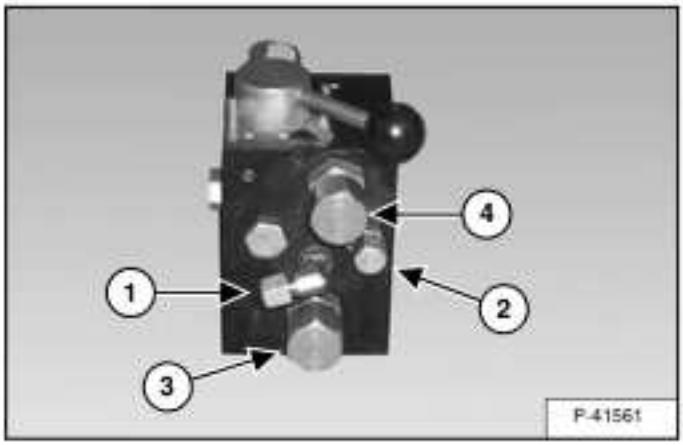
Figure 20-30-41



Install fitting (Item 1) **[Figure 20-30-41]** (Port T).

Install fitting (Item 2) **[Figure 20-30-41]** (Port P).

Figure 20-30-42



Install fitting (Item 1) **[Figure 20-30-42]** (Port SD1).

Install fitting (Item 2) **[Figure 20-30-42]** (Port SD2).

Install fitting (Item 3) **[Figure 20-30-42]** (Port M1).

Install fitting (Item 4) **[Figure 20-30-42]** (Port M2).

MidWestTech | Bobcat LT112, MX112, LT113, LT213, LT313, LT414 Trencher Service Man... Order the manual at mid-west-tech.com >