SOW for Manitowoc 777 200-Ton Crane Repairs

Provide all labor, parts, tools, and materials necessary to repair two leaking mast cylinders on Amphibious Construction Battalion TWO's MANITOWOC 777 200-Ton crawler crane, USN 42-02527. Contract should include testing and certification by a licensed Manitowoc dealer.

The hydraulic cylinders have a 12" bore and 184-1/4" stroke and a part number of 385575. Replace worn out parts. Parts list provided. All parts/components required for repair or replacement should be "direct replacements" for the Manitowoc 777 200-ton crawler crane.

More information, if required, can be found in the MANITOWOC 777 Technical manual.

MODEL 777

MAST

ITEM	PART#	QTV.	DESCRIPTION OF PART
REQUIRED FOR 385588 HYDRAULIC CYLINDERS			
28	385588	2	CYLINDER, Hydraulic (12" bore x 184-114" stroke) (see Note 6) (see 0-873)

Note 1: Apply LOCTITE #271 (MCC 622292) to threads.

Note 2: Apply NEVER-SEEZ or equivalent to pins, shafts and bores.

Note 3: Maximum capacity for crane block as rigged is 35,000 lbs- 15.88 Mtonne. Note 4: 140'

(42.7m) of 1" (.288mm)- 6 x 26 WARRINGTON SEALE. extra improved plow steel, regular lay, IWRC- B.S. of 103,400 lbs (46,900 kg) Note 5:

Center wire rope guide using washers (item 21) as shims

Note 6: Do not mix cylinders of different manufacturers on same machine.

MODEL
777

MAST

ITEM	PART #	QTY.	DESCRIPTION OF PART
1	10186	2	PIN
	562150	4	PIN, Cotter (3/8" x 3" long)
2	71176	6	PIN, Keeper
	612715	12	SCREW, Hex Cap (3/4-10 UNC-2A x 1-1/2" long) (torque to 180 ft lb - 244.1 Nm) (see Note 1)
	710308	12	WASHER, Lock (3/4")
3	172277	2	PIN
	563823	2	PIN, Snap
4	178284	1	BUTT, Boom (for #78 boom) 22' 6" - 16.85m (see 0-553)
5	178695	1	MAST
	178692	1	CONNECTOR SUB-ASSEMBLY
6	178702	1	PIN
7	179018	1	BOOM HOIST CYLINDER ENCODER ASSEMBLY
8	178714	1	BOOM STOP ASSEMBLY
9	178717	1	GUARD, Rope
	563823	2	PIN, Snap
10	178729	6	PIN
	429010	1	FITTING, Grease (1/4")
11	168779	1	BOOM ANGLE INDICATOR ASSEMBLY
12	178840	2	PIN
	620274	1	SCREW, Soc Hd (#10-24 UNC-2A x 1/2" long) (torque to 180 ft-lb - 244.1 Nm) (see Note 1)
	612719	4	SCREW, Hex Cap (3/4-10 UNC-2A x 2" long) (torque to 180 ft-lb - 244.1 Nm) (see Note 1)
	710308	4	WASHER, Lock (3/4")
13	219120	6	BAR
14	277348	2	BRIDLE (3/4" DIA.) (16' 7-1/2" long - 5.07m long)
15	277455	2	BRIDLE (1-1/2" DIA.) (20' long - 6.10m long)
16	563871	4	PIN, Tab Lock
17	192600	1	GREASE PIPING ASSEMBLY (boom hoist cylinder remote greasing)
WIRE ROPE GUIDE ASSEMBLY FOR SELF ERECT OR (2) DRUM OPERATION			
18	178178	1	WIRE ROPE GUIDE ASSEMBLY (see Note 5)
19	178703	4	PIN (discard supplied snap pin)
20	562110	4	PIN, Cotter
21	709959	4	WASHER, Flat (1-1/2" x 2-1/2" x 1/16")(see Note 5)
REQUIRED WITH WIRE ROPE 1" (26mm)			
22	98201	1	SHEAVE SUB-ASSEMBLY (30" dia. 1" - 26mm wire rope)
REQUIRED WITH WIRE ROPE 1-1/4" (32mm)			
23	179411	1	SHEAVE SUB ASSEMBLY (30" dia. 1-1/4" - 32mm wire rope)
REQUIRED FOR SELF-ERECT			
24	237095	1	LOAD BLOCK ASSEMBLY (see Note 3)
25	349291	1	CLIP, Wire Rope (1")
26	719276	1	ROPE, Wire (see Note 4)
REQUIRED FOR 385575 HYDRAULIC CYLINDERS			
27	385575	2	CYLINDER, Hydraulic (12" bore x 184-1/4" stroke) (see Note 6) (see O-898)

ASSEMBLY	REVISION
178567	C

MODEL
777, 777T

HYDRAULIC CYLINDER

Boom Hoist

3855750 (crawler), 3855950 (truck)

ITEM	PART #	QTY.	DESCRIPTION OF PART
1	9372220944	1	ROD (cylinder 3855950)
	9372220873	1	ROD (cylinder 3855750)
2	9372220945	1	BARREL (cylinder 3855950)
	9372221141	1	BARREL (cylinder 3855750)
3	9372220535	1	HEAD
4	9083220005	1	WIPER
5	9754220026	1	O-RING
6	9372220946	1	RING, Back-up
7	9372220947	1	SEAL, Rod
8	9372220948	1	RING, Glyd (HPR)
9	9372220949	2	RING, Wear
10	9372220950	1	O-RING
11	9372220951	1	RING, Back-up
12	9372220952	1	PISTON (cylinder 3855950)
	9372221142	1	PISTON (cylinder 3855750)
13	9372220953	2	RING, Wear (piston)
14	9372220098	1	SEAL, Capped T
15	9372220954	1	O-RING
16	9372220955	2	RING, Back-up
17	9372220623	2	PIN, Piston Locking (cylinder 3855950)
18	9372220605	2	SCREW, Set (1/2 x 1/2) (cylinder 3855950) (see Note 2)
19	9372220490	18	BOLT, Hex (1-8UNC x 4-1/2) (see Note 3)
20	9372220956	2	CARTRIDGE, Valve
	3855654	1	KIT, Seal
21	9372220957	1	CARTRIDGE, Valve (set to 5000 PSI) (cylinder 3855750)
	3855653	1	KIT, Seal
21	9437220071	1	CARTRIDGE, Valve (set to 5500 PSI) (cylinder 3855950)
	3855653	1	KIT, Seal
22	9372220958	1	CARTRIDGE, Valve (set to 3000 PSI)
	3855653		KIT, Seal
23	9372220228	3	PLUG (SAE 8)
24	9372220959	2	PLATE, Cover
25	9372220960	1	O-RING
26	9372220961	8	BOLT, Hex (7/16-14UNC x 1")
27	9372220503	2	PLUG (1/4 NPT)
28	9372220962	1	CLEVIS, Male
	9372220963	1	BUSHING
29	9372220265	1	PLUG (1/8 NPT)
30	9372220503	4	PLUG (1/4 NPT) (see Note 2)
31	9372220964	1	O-RING (cylinder 3855950)
32	9372220965	1	RING, Back-up (cylinder 3855950)
33	9372220966	1	PLATE, Piston Locking (cylinder 3855950)
34	9372220967	9	BOLT, Hex (1-14NS x 3") (see Note 4) (3855950)
35	9372221143	1	PLATE, Retaining

ASSEMBLY	REVISION
O-898	G

MODEL
777, 777T

HYDRAULIC CYLINDER

Boom Hoist

3855750 (crawler), 3855950 (truck)

ITEM	PART #	QTY.	DESCRIPTION OF PART
36	9372220279	1	PIN, Spring
37	9372221144	1	SUPPORT, Spring
38	9372220967	9	BOLT, Hex (1-14NS x 3) (385575)
	3855755	1	KIT, Seal
4	9083220005	1	WIPER
5	9754220026	1	O-RING
6	9372220946	1	RING, Back-up
7	9372220947	1	SEAL, Rod
8	9372220948	1	RING, Glyd (HPR)
9	9372220949	2	RING, Wear
10	9372220950	1	O-RING
11	9372220951	1	RING, Back-up
13	9372220953	2	RING, Wear (piston)
14	9372220098	1	SEAL, Capped T
15	9372220954	1	O-RING
16	9372220955	2	RING, Back-up

Note 1: Use primer #21348 prior to applying LOCTITE #277.

Note 2: Apply LOCTITE #262 (MCC 622297)

Note 3: Apply LOCTITE #262 (MCC 622297) and torque to 835 ± 50 ft.lbs. (1132 ± 68 Nm)

Note 4: Apply LOCTITE #262 (MCC 622297) and torque to 800 ± 50 ft.lbs. (1085 ± 68 Nm)

ASSEMBLY	REVISION
O-898	G