



## INSTRUCTION BULLETIN

No. 3721  
Machine: 830  
Published: 6-95/00  
System: ENGINE

**NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in your machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save you the cost of ordering an entire kit.**

*NOTE: Numbers in parenthesis ( ) are reference numbers for parts listed in Bill of Materials.*

Installation Instructions for Kit number 764132

### **SYNOPSIS / PROBLEM:**

This kit contains the parts needed to install engine oil filter kit with O-rings on the machine listed above. This kit replaces the pipe fitting style oil filter found on machines with the serial numbers up to 1205. Please follow step-by-step instructions.

**SPECIAL TOOLS / CONSIDERATIONS:** A chain wrench or at least an 18 in. channel lock wrench is needed to remove the filter and base.

The cab will have to be tilted forward to install the engine oil filter O-ring kit. An *overhead-motorized trolley crane* must be used to tilt the cab. **DO NOT** attempt to tilt the cab without this type of lifting device. (Estimated Time to complete: 4 hours)

**TO TILT CAB:** See *Service Manual MM 333 (page 2-13)* for more information.

**FOR SAFETY: Before leaving or servicing machine, stop on level surface and set parking brake. Then turn off machine and remove key. Block the wheels.**

1. Disconnect battery cables from machine and remove the battery.
2. Remove the M20 hex nut and washer from both rear corners of the cab.
3. Use a lifting eye on top of the cab and a cab lifting cable from the overhead hoist. Lift the cab and move the trolley of the crane forward at the same time.
4. The cab is tilted all the way when the cab tilt cable is tight.
5. Leave the crane hooked up while working on the engine oil filter O-ring kit.

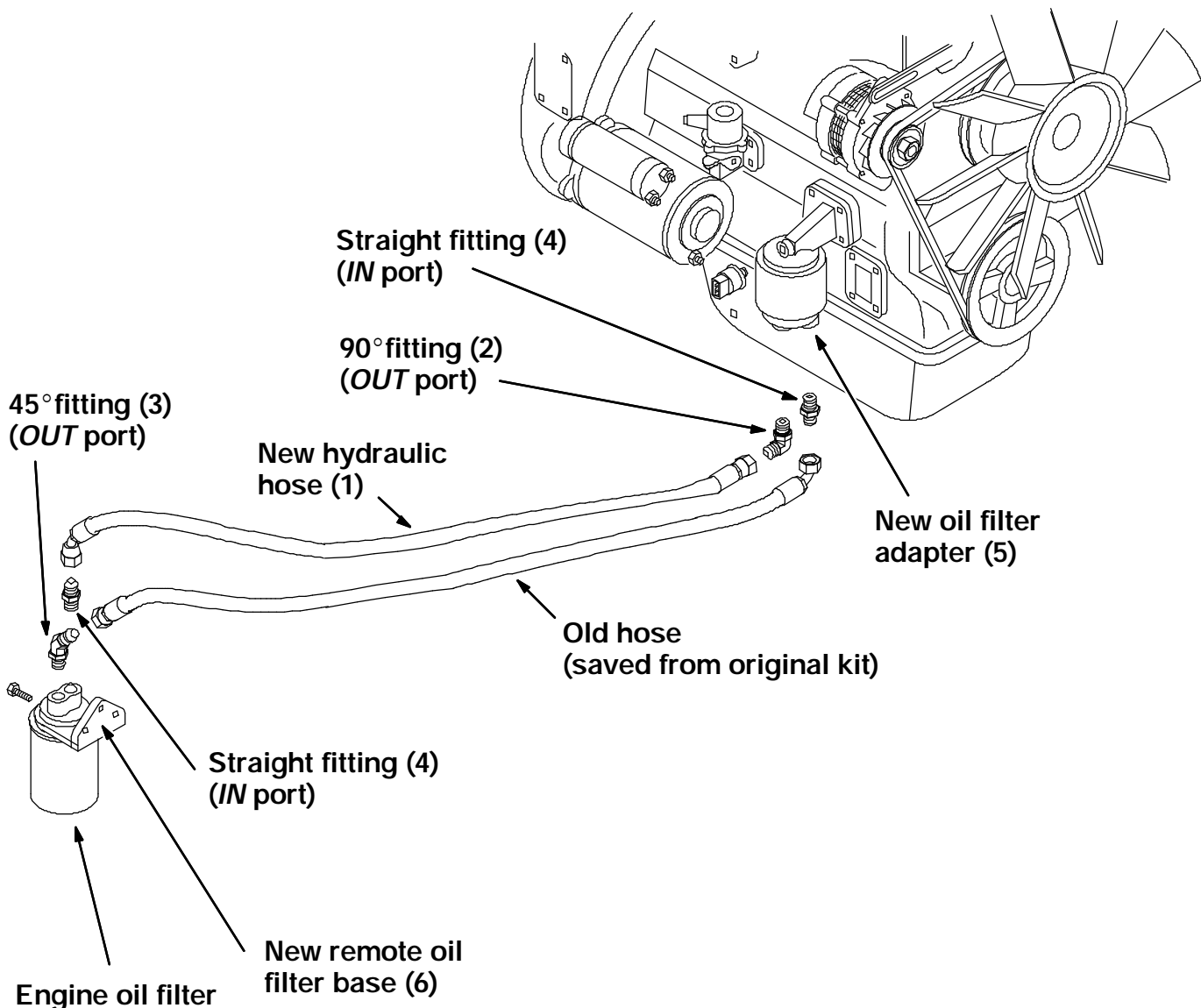
*NOTE: If the crane is removed the cab must be blocked up in some manner. A cab support bar, (part # 761079), can be ordered from TENNANT CO.*

### **TO REMOVE OLD FILTER BASE AND ADAPTER:**

(Refer to FIG. 1)

1. Open the right hand engine door.
2. Place a drain pan under the oil filter to catch any oil that leaks out when the filter and oil lines are removed.
3. Remove the engine oil filter. Be careful not to damage the filter when removing.  
(Refer to Fig. 1)
4. Disconnect the two hydraulic hoses from the remote oil filter base. (Refer to Fig. 1)

5. Disconnect the two hydraulic hoses from the oil filter adapter on the engine. Discard one of these hoses. Retain the other one for re-use with the o-ring kit. (Refer to Fig. 1)
6. Using the chain wrench or the channel lock wrench; remove the oil filter adapter from the engine. (Refer to Fig. 1)
7. Remove and retain the hardware holding the remote oil filter base to the engine frame. Remove and discard the old remote oil filter base from the engine. (Refer to Fig. 1)



**FIG. 1 - Oil Filter And Adapter Assembly**

**TO INSTALL NEW FILTER BASE AND ADAPTER:**  
(Refer to FIG. 1)

1. Install the 90°hydraulic fitting (2) in the **OUT** port on the new oil filter adapter (5). (Refer to Fig. 1)
2. Install one of the straight hydraulic fittings (4) in the **IN** port on the new oil filter adapter (5). (Refer to Fig. 1)

3. Screw the new oil filter adapter (5) on the engine in place of the adapter removed in step 6 of the TO REMOVE OLD FILTER BASE AND ADAPTER instructions. (Refer to Fig. 1)

*NOTE: After the oil filter adapter is tightened on TURBO engines; the 90° fitting must be installed so it clears the angle in the engine cradle. There must be 3/8 in. clearance.*

4. Install the new remote oil filter base (6) on remote oil filter bracket. Reinstall and tighten the hardware. (Refer to Fig. 1)
5. Install the oil filter on the new remote oil filter base (6). (Refer to Fig. 1)
6. Install the 45°hydraulic fitting (3) in the **OUT** port of the new remote oil filter base (6). (Refer to Fig. 1)
7. Install the straight hydraulic fitting (4) in the **IN** port of the new remote oil filter base (6). (Refer to Fig. 1)
8. Connect the straight end of the new hydraulic hose (1) to the 90°hydraulic fitting (2) in the **OUT** port on the new oil filter adapter (5). (Refer to Fig. 1)
9. Connect the 45°end of the new hydraulic hose (1) on the straight hydraulic fitting (4) in the **IN** port on the new remote oil filter base (6). (Refer to Fig. 1)
10. Connect the 90°end of the hose removed in step 5 of the TO REMOVE OLD FILTER BASE AND ADAPTER instructions to the straight fitting (4) in the **IN** port on the new oil filter adapter (5). (Refer to Fig. 1)
11. Connect the straight end of the hose removed in step 5 of the TO REMOVE OLD FILTER BASE AND ADAPTER instructions to the 45°hydraulic fitting (3) in the **OUT** port of the new remote oil filter base (6). (Refer to Fig. 1)

*NOTE: Before filling the engine with oil, check to make sure the hydraulic hose runs from the **out** port on the new oil filter adapter (5) to the **in** port on the remote oil filter base (6).*

12. Check the engine oil level and top off with the proper grade of oil.
13. The cab can now be lowered back in position. Use the reverse order of the TO TILT CAB instructions.

*NOTE: See Service Manual MM 333 (page 2-13) for more information.*

14. Start the engine and check for leaks in the areas of the new adapter and base.

#### **BILL OF MATERIALS FOR ENGINE OIL FILTER O-RING KIT 764132**

<b>Ref.</b>	<b>TENNANT Part No.</b>	<b>Description</b>	<b>Qty.</b>
1	762410	Hydraulic hose	1
2	762424	Hydraulic fitting, 90°	1
3	762476	Hydraulic fitting, 45°	1
4	762498	Hydraulic fitting, str.	2
5	764151	Oil filter adapter	1
6	764152	Remote oil filter base	1

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