



Installation Instructions

18SP617 – MBE4000 Extended Fill / Dipstick 40L Front Sump Kit – Butterfly Hood (P/N: 23535993)

KIT DESCRIPTION

This kit (P/N: 23535993) permits the installation of an extended oil fill / dipstick assembly on a 40L front sump MBE4000 EGR engine (Butterfly Hood).

KIT CONTENTS

See Table 1 for the extended fill / dipstick kit contents:

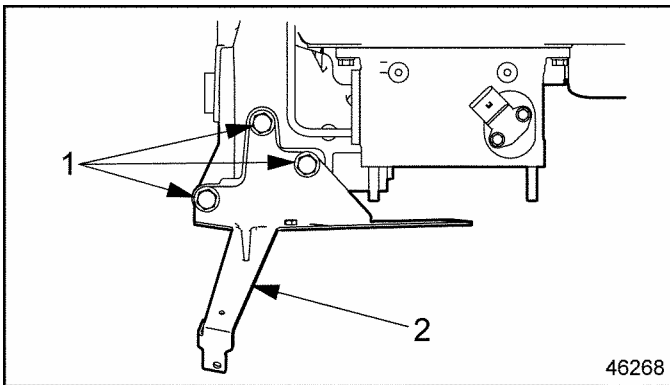
Part No.	Qty.	Description
A 460 010 09 64	1	Oil Fill Tube
A 344 018 03 68	1	Oil Fill Cap
A 352 018 67 40	1	Strap, Oil Cap
N 007 337 00 40 09	1	Rivet
A 000 995 12 77	2	Clamp
A 460 010 06 40	1	Bracket, Oil Fill/Dipstick
N 910 105 01 00 06	3	Bolt, M10 x 20
A 460 010 08 40	1	Bracket, Support / Stiffening
A 460 010 09 66	1	Guide Tube, FRT Sump 40L (Butterfly Hood)
A 460 010 32 72	1	Dipstick, FRT Sump 40L (Butterfly Hood)
A 470 997 00 71	1	Fitting, Oil Pan
N 007 603 01 81 01	1	Seal Ring
M 910 105 00 60 04	5	Bolt, M6 x 16
23536043	3	P-Clip
23535543	2	Double Cable Strap
18SP617	1	Installation Instructions

Table 1 Components of MBE4000 Extended Fill / Dipstick Kit (P/N: 23535993)

INSTALLATION PROCEDURE

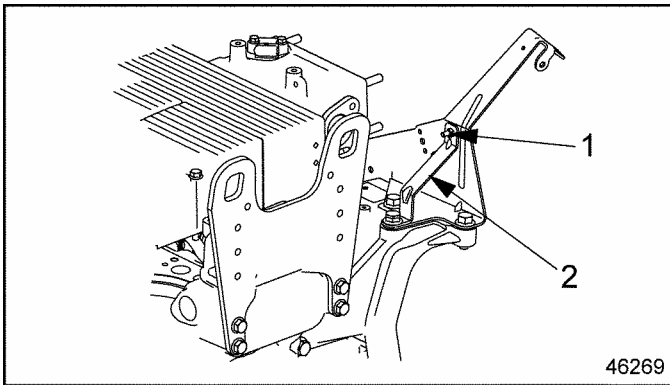
Perform the following steps for removal of current components and installation of new kit components:

1. Remove standard oil fill, dipstick, guide tube, fitting, and fill / dipstick bracket.
2. Install fill / dipstick bracket (P/N: 460 010 06 40) to top of alternator bracket using three M10 x 20 bolts (P/N: N 910 105 01 00 06). Do not tighten bolts. See Figure 1.
3. Install support / stiffening bracket (P/N: 460 010 08 40) to dipstick bracket using one M6 x 16 bolt (P/N: N 910 105 00 60 04). See Figure 2. Torque the three M10 x 20 bolts to 46 N·m (34 lb·ft). See Figure 1. Torque the one M6 x 16 bolt to 9 N·m (6.6 lb·ft). See Figure 2.



1. Fill / Dipstick Bracket Bolts, M10 x 20 (3) 2. Fill / Dipstick Bracket

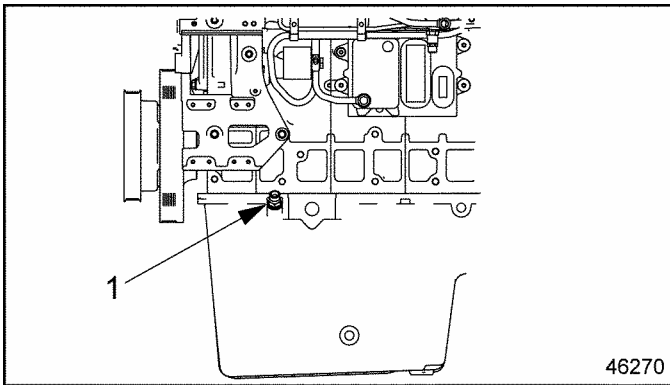
Figure 1 Installing Fill / Dipstick Bracket to Alternator Bracket



1. Support/Stiffening Bracket Bolt, M6 x 16 2. Support/Stiffening Bracket

Figure 2 Installing Support / Stiffening Bracket

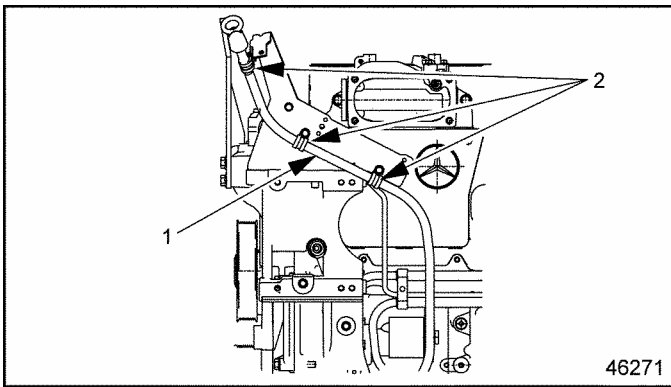
4. Install dipstick connector fitting (P/N: 470 997 00 71) to oil pan, using seal ring (P/N: N 007 603 01 81 01). Torque fitting to 50 N·m (37 lb-ft). See Figure 3.



1. Dipstick Connector Fitting

Figure 3 Installing Dipstick Connector Fitting to Oil Pan

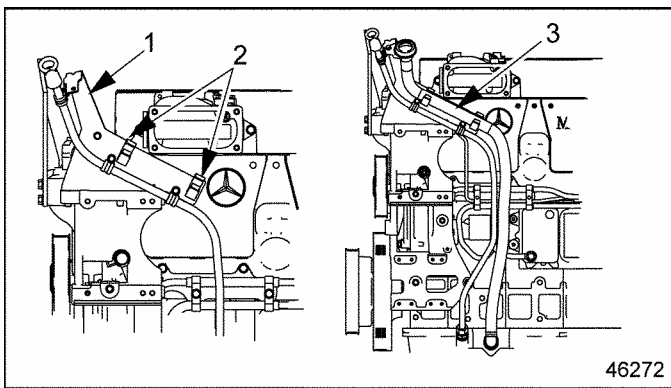
5. Install dipstick guide tube (P/N: 460 010 09 66) to oil pan fitting with M22 nut, which is attached to the dipstick guide tube. Also attach dipstick guide tube to block using three P-Clips (P/N: 23536043) and three M6 x 16 bolts (P/N: N 910 105 00 60 04). Tighten M22 nut to 70 N·m (52 lb-ft). Torque M6 x 16 bolts to 9 N·m (6.6 lb-ft). See Figure 4.



1. Dipstick Guide Tube 2. P-Clips

Figure 4 Installing Dipstick Guide Tube

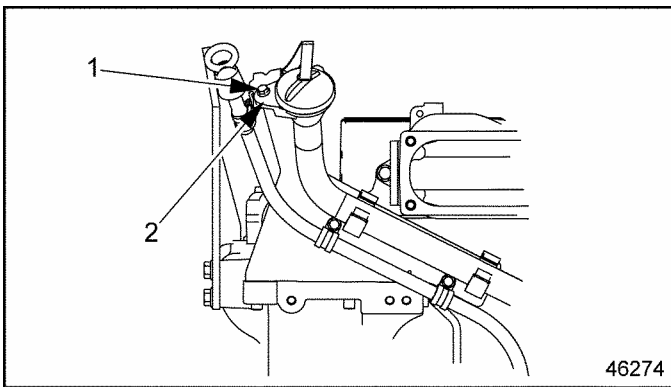
6. Insert dipstick (P/N: 460 010 32 72) in the dipstick guide tube.
7. Snap two oil fill tube clamps (P/N: 000 995 12 77) into holes located on oil fill / dipstick bracket. See Figure 5.
8. Attach oil fill tube (P/N: 460 010 09 64) to oil pan and clamp to bracket. Orient neck to front. See Figure 5.



1. Oil Fill / Dipstick Bracket 2. Oil Fill Tube Clamps 3. Oil Fill Tube

Figure 5 Installing Oil Fill Tube

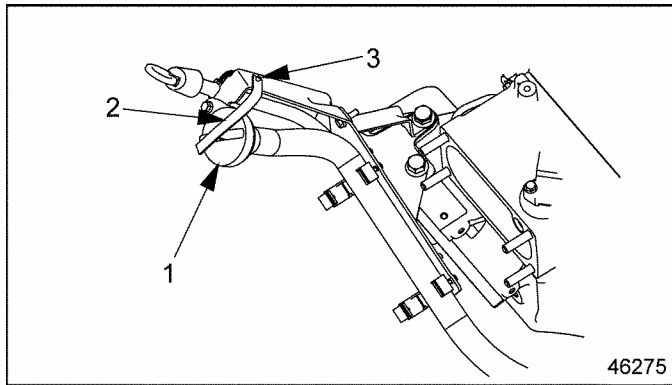
9. Connect oil fill neck flange to fill / dipstick bracket using one M6 x 16 bolt (P/N: N 910 105 00 60 04). Torque to 9 N·m (6.6 lb-ft). See Figure 6.



1. Oil Fill Neck Bolt, M6 x 16 2. Oil Fill Neck Flange

Figure 6 Attaching Oil Fill Neck to Bracket

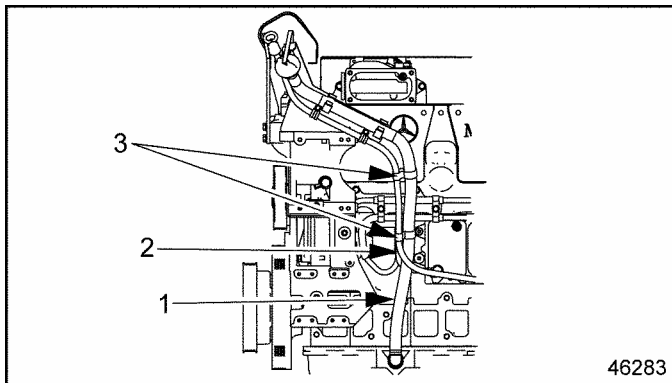
10. Install oil fill cap (P/N: 344 018 03 68) and oil cap strap (P/N: 352 018 67 40), using rivet (P/N: N 007 337 00 40 09) to fasten strap to bracket hole. See Figure 7.



1. Oil Fill Cap
2. Oil Cap Strap
3. Rivet

Figure 7 Attaching Oil Fill Cap and Strap to Bracket

11. Fasten the oil fill tube to dipstick tube with double cable tie strap (P/N: 23535543). Clip tie ends after tightening. See Figure 8.



1. Oil Fill Tube
2. Dipstick Guide Tube
3. Double Cable Tie Strap (2 qty.)

Figure 8 Attaching Double Cable Tie Strap



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