VOLVO
Construction Equipment

Service Information

Document Title: **Drum frame, removing**	Function Group:	Information Type: **Service Information**	Date: **2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Drum frame, removing

Op nbr 711-030

1. Place machine in the service position. Refer to 191 Service position.
2. Remove the front scraper weld. Refer to 7771 Smooth drum scrapers, replacing.
3. Remove the drum from the drum frame. Refer to 777 Drum, removing.
4. Using an appropriate lifting device, lift the front of the machine by the drum frame. Remove the jack stands placed during drum removal, and move them under the rear frame as shown. Detach the lifting device.
   NOTE!
   Weight of front end at drum frame 939 kg (2070 lb.)

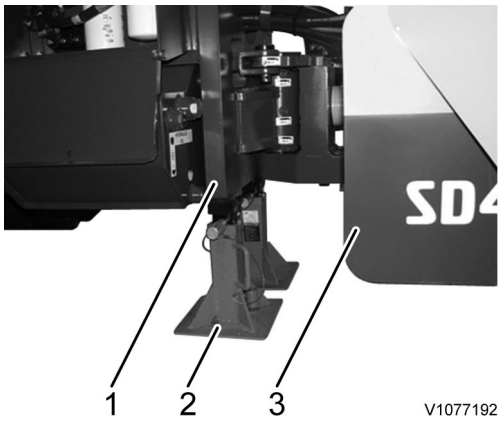

Figure 1

1. Frame bulkhead
2. Jack stand
3. Drum frame

5. Remove the two bolts securing the clamp plate to the drum frame, leaving the hoses attached to the clamp plate. Feed the hose cover plate with attached hoses through the hole in the drum frame and position safely out of the way.

Figure 2

1. Two (2) bolts to be removed

6. Repeat step 5 with the opposite side of the machine.

7. Remove the bolts and washers securing the lock plate to the swivel. Remove the lock plate form the articulation pin.

8. Secure the drum frame with appropriate lifting straps. Place the straps as shown on the drum frame. Remove the articulation pin and remove the drum frame from the swivel.
   NOTE!
   Weight of drum frame 460 kg (1015 lb.)

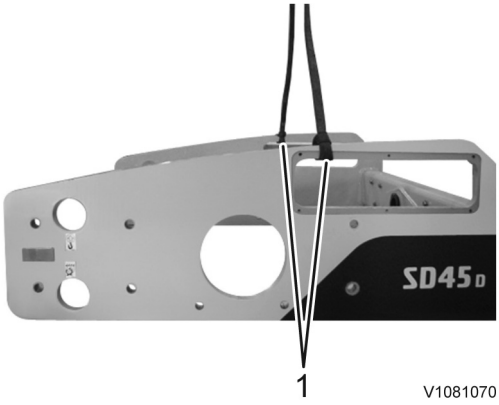

Figure 3

1. Straps shown at approximate balance points on drum frame

Document Title: **Drum frame, installing**	Function Group:	Information Type: **Service Information**	Date: **2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Drum frame, installing

Op nbr 711-031

1. Replace the dust seals on the drum frame and inspect the bearing cups and cones.

2. Using an appropriate lifting device, lift the drum frame and position it above the swivel. Slowly lower the drum frame into position, making sure the rear bearing cone does not rotate, and the dust seals do not tear.
   NOTE!
   Weight of the drum frame: 460 kg (1015 lb.)

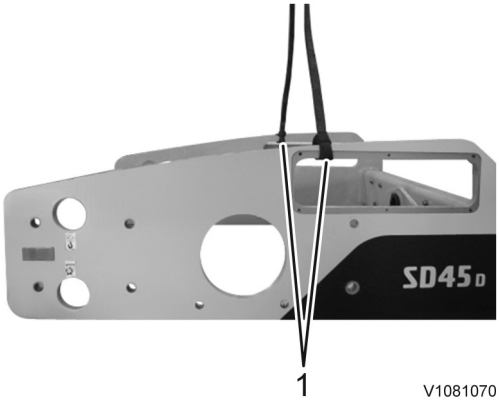

Figure 1
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1. Straps shown at approximate balance points on drum frame

3. Replace the o-ring on the oscillation pin and insert the horizontal oscillation pin through the drum frame into the swivel. Tighten and torque. Refer to 030 Tightening torque, specifications. Remove the lifting device.

4. Apply a high strength thread locking compound and install the lock plate. Tighten and torque. Refer to 030 Tightening torque, specifications.

5. Pull the hoses through the opening of the drum frame. Apply a high strength thread locking compound and install the attached clamp plates to the drum frame with two (2) bolts and washers.

6. Repeat step 5 for the other side of the machine.

Document Title: **Swivel, removing**	Function Group:	Information Type: **Service Information**	Date: **2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Swivel, removing

Op nbr 711-035

1. Place the machine in the service position. Refer to 191 Service position.
2. Remove the front scraper weld. Refer to 7771 Smooth drum scrapers, replacing.
3. Remove the drum from the drum frame. Refer to 777 Drum, removing.
4. Remove the drum frame. Refer to 7117 Drum frame, removing.
5. Remove the hanger assembly connecting the hoses to the main frame to allow for more vertical clearance. Pull the hoses to one side of the machine.
6. Remove the roll pin from the pivot pin.
7. Remove the pivot pin form the swivel and steer cylinder.
8. Remove the lock plate.
9. Place an appropriate floor jack under the swivel and raise until it makes contact with the swivel, but does not lift the machine. Secure the swivel to the floor jack with "C" clamps.

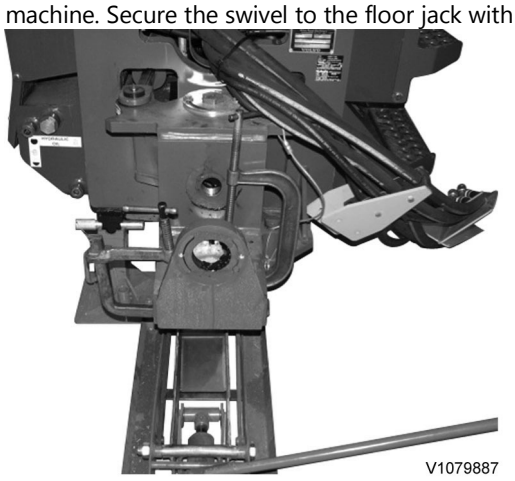

Figure 1
Swivel secured to floor jack with "C" clamps

10. Remove the oscillation pin from the swivel
11. Remove the articulation lock pin from the service position and separate the swivel from the rear frame.

Document Title: **Swivel, installing**	Function Group:	Information Type: **Service Information**	Date: **2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Swivel, installing

Op nbr 711-036

1. Replace the dust seals on the main frame before the swivel is installed. Secure the swivel to an appropriate floor jack with “C” clamps.

2. Inspect the bearing races, cones and bushings and replace if necessary.

3. Carefully install the swivel to the main frame with a horizontal motion. Be cautious not to rip the dust seals while installing.

4. Install the articulation lock pin in the swivel. Place a new o-ring on the articulation pin and install into the swivel. Tighten and torque. Refer to 030 Tightening torque, specifications

5. Connect the steering cylinder to the swivel with the pivot pin. Secure the pivot pin with the roll pin.

6. Apply a high strength thread locking compound and install the lock plate to the swivel with the two (2) bolts and washers. Refer to 030 Thread locking compound, application/specifications. Tighten and torque. Refer to 030 Tightening torque, specifications.

7. Install the hanger assembly to the main frame.

8. Grease the pivot pin and oscillation joint. Refer to 173 Steering cylinder pins, greasing and 173 Swivel joint (horizontal and vertical) pins, greasing.

Document Title: **Wheel, removing and fitting one**	Function Group: **771**	Information Type: **Service Information**	Date: **2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Wheel, removing and fitting one

Op nbr 771-001

11668010 Wheel forklift

NOTE!
Read the Safety Section before starting the procedure.

Wheel, removing

1. Place machine in the service position. Refer to 191 Service position 1.
2. Secure the machine with an appropriate jack stand under the rear end of the machine. Make sure it is positioned correctly and has safe ground support.

Figure 1

1. Lifting points
2. Jack stands

WARNING

Never work under/on machines without using recommended support equipment.

NOTE!

Before lifting the machine read 191 Safety when lifting and supporting complete machine.

3. Use a wheel forklift and secure the wheel.

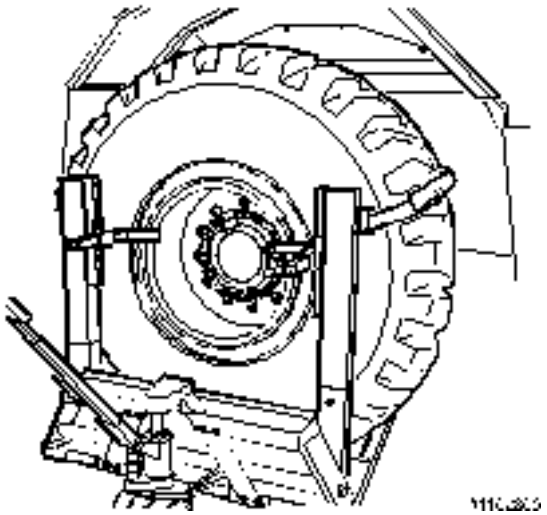

Figure 2
Wheel forklift

4. Remove the wheel nuts and wheel from the machine.

WARNING

Risk of personal injury. Very heavy object.

Wheel weight (including fluid): 216 kg (477 lb.)
NOTE!
When mounting a tyre the qualified person should:

- Ensure the rim is clean and rust free.
- The rim must be free of any damage that could prevent proper seating along the bead, or cause improper tyre rotation and premature wear, or affect handling of the machine.
- Generously lubricate both tyre and rim.

WARNING

Explosion hazard.

- **Never inflate the tyre to over 2.4 bar (35 psi) to seat beads. Excessive inflation pressure when seating beads may cause the tyre and rim assembly to explode causing severe injury or death.**
- Ensure normal operating pressure is not above 1.1 bar (16 psi).

NOTE!
Placing water in tyres is an economical means of adding weight to the wheels of the machine. The addition of calcium chloride to the water is recommended to prevent the water from freezing. If a tyre with ballast is replaced the replacement tyre must also contain an equal amount of ballast.

Contact a Manufacturer's Authorized Dealer or Distributor for more information on ballasted tyres.

Wheel, installing

5. Before reinstalling the wheel to the axle hub, clean the mounting face of the axle and wheel with a wire brush.

6. Reinstall the wheel with the wheel forklift.
Wheel weight (including fluid): 216 kg (477 lb.)

7. Reinstall the wheel nuts. Torque the nuts in a rotating diagonal pattern. Refer to 030 Wheel, tightening torque.

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Figure 3
Wheel nuts, torque tighten

8. Lower the machine and remove the lifting device and jack stands.

9. Check the tyre pressure. Refer to 173 Tyres, checking air pressure.

Document Title:	Function Group:	Information Type:	Date:
Drum eccentric, description	**777**	**Service Information**	**2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Drum eccentric, description

The drum is equipped with an eccentric weight mounted internally which acts in a centrifugal manner. The purpose of the eccentric is to provide vibration to the drum, which aids in the compaction of the soil. The eccentric can be set to either high or low amplitude by activating the switch in the operator's platform, depending on the conditions of the soil.

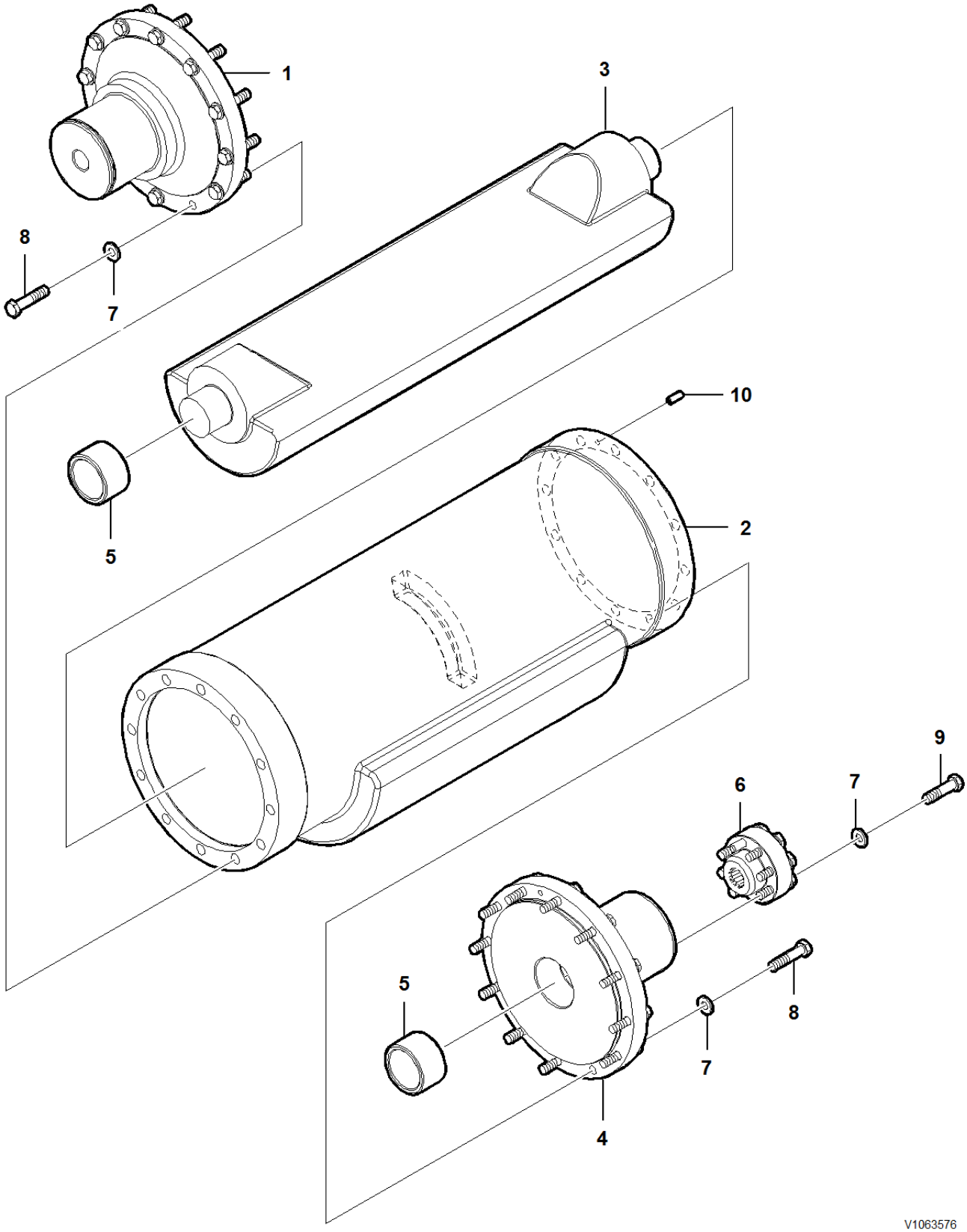

Figure 1
Drum eccentric and components

1. Drum drive side journal
2. Eccentric weight - outer
3. Eccentric weight - inner
4. Vibration side drive journal
5. Bearing

6. Splined coupling
7. Washer
8. Hexagon screw
9. Hexagon screw
10. Pin

Document Title: **Drum shock mount, replacing**	Function Group: **777**	Information Type: **Service Information**	Date: **2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Drum shock mount, replacing

Op nbr 777-009

Removing the shock mount

1. Place machine in the service position. 191 Service position.

2. Remove the nut and two (2) washers attaching the shock mount to the shock plate.

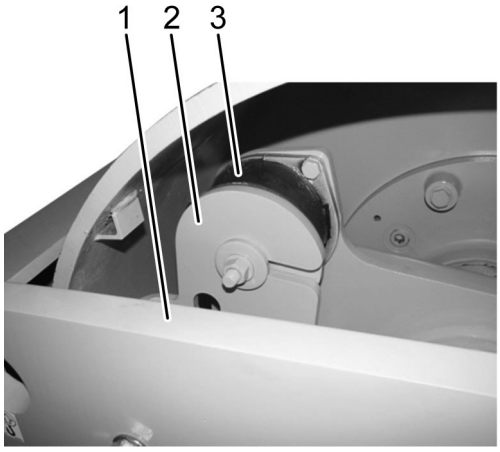

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Figure 1

1. Drum frame
2. Shock plate
3. Shock mount

3. Remove the two (2) bolts and washers attaching the shock mount to the carrier plate. The shock mount can now be removed.

Installing the shock mount

4. Using an appropriate lifting device, take some weight off the drum frame to allow easier alignment and installation.

5. Slide the shock mount into the horizontal slot on the shock plate. Align the holes at the rear of the shock mount with the threaded holes on the carrier plate. Apply a high strength thread locking compound to the bolts. Tighten and torque. Refer to 030 Tightening torque, specifications.

6. Apply a high strength thread locking compound to the threaded stud on the shock mount. Install the nut and two (2) washers. Tighten and torque. Refer to 030 Tightening torque, specifications.

Document Title: **Drum, removing**	Function Group: **777**	Information Type: **Service Information**	Date: **2015/10/27**
Profile: **COS, SD45D, SD45F [GB]**			

Drum, removing

Op nbr 777-001

1. Place machine in the service position. Refer to 191 Service position.

2. Remove the scraper from the machine. Refer to 7771 Smooth drum scrapers, replacing.

3. Using an appropriate lifting device, lift the front end of the machine high enough to place a set of jack stands under the front of the drum frame as shown.

   a. Adjust the jack stands so approximately 5 cm (2 in.) exists between the bottom of the drum and the ground.
   b. Do not remove the weight from the lifting device to ensure that the drum does not fall after the hardware is removed.

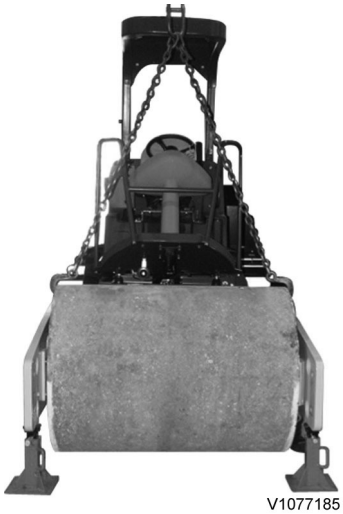

Figure 1
Proper placement of jack stands with drum attached to lifting device
NOTE!
Weight of the front end of the machine 2216 kg (4885 lb.)

NOTICE

It is very important to keep the hydraulic system free from any impurities, as these can cause abnormal wear and may lead to expensive downtime. Greatest possible cleanliness should be maintained during all handling of hydraulic components and hydraulic oil.

4. Clean, identify and remove the hoses from the vibration motor. Cap or plug all hoses and adapters.

5. Clean, identify and remove the hoses from the drive motor. Cap or plug all hoses and adapters.

6. Remove the six (6) bolts attaching the hose cover plate to the drum frame. With the hoses still clamped to the hose cover plate, pull the hoses through the hole in the drum frame.

Figure 2
Hose cover plate removed with hoses attached

7. Repeat step 5 with the opposite side of the machine.

WARNING

The work involves handling heavy components - failure to stay alert may result in severe crushing injuries.

8. Remove the drum from the drum frame.

   a. Remove the eight (8) nuts and washers attaching the drum to the carrier plate and torque hub.
   b. Remove the eight (8) bolts and washers from the drum frame.
      NOTE!
      Retain the shims from the carrier side of the drum.
   c. With an appropriate lifting device, lift the drum from the machine in a vertical direction.
   d. Place the drum on a suitable flat surface away from the machine for service, taking care to block the drum from any rolling motion.

NOTE!
Weight of the assembled drum 1406 kg (3100 lb.)

NOTE!
All drums will have a shim pack on the carrier side of the drum. These can be reused, but may not require the same amount as removed from the machine.