

# SA SERIES GEARBOX OIL CHANGE INSTRUCTIONS



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## CHANGING THE GEAR OIL:

1. Position the Drive unit where the oil can flow freely from the gearbox once the drain plug is removed. Place a drain pan under the drain port.
2. Remove the drain plug and allow the oil to drain out completely. Allow 10-15 minutes for the oil to drain completely.
3. Position the gearbox for filling by orientating the unit so that the oil fill port is accessible. In most cases, the bail housing will need to be removed to access the oil fill port located in the top section of the gearbox, near the motor. The motor manifold must be removed before the bail can be removed.
4. When removing the motor manifold be aware of the o-rings between the motor and the manifold. Remove the pressure transducers for Energi models before removing the bail.
6. Replace the oil drain port and fill the gearbox with the required amount of gear oil. When filling, allow the gear oil to settle inside the gearbox (10 minutes), and add more oil as needed.
7. It is important to vent the gearbox when filling it with gear oil. Open the port opposite the fill port for proper venting.
8. Locate the oil level sight port and visually inspect that oil can be seen after adding the correct amount. If oil can be seen, this is an indication that the oil level is adequate.
9. After the correct amount of oil has been added to the gearbox, replace the fill and vent ports, reassemble the manifold to the motor, and reassemble the bail to the gearbox. Ensure all hardware is tightened to the correct torque values.

## AMOUNT OF OIL

The table to the right shows the quantities of oil required for filling. However, these values should be used for reference purposes only and exact lubrication should be verified by means of visual checks.

## SELECTING AN OIL

Any mechanical transmission oil with EP additives in viscosity classes ISO VG220 to ISO VG320 under ISO 3448 can be used. In special cases oils with different viscosities may be used. In this case, contact Dinamic Oil technical assistance service.

The oil viscosity must be chosen to suit the room temperature and the gearbox's real operating temperature. If the gearboxes must operate at very high ambient temperatures or with very large temperature excursions, synthetic oil is recommended.

## LUBRICATION RECOMMENDATION

SAE 80W90 GL-5 Oil  
Density / 15 deg C: 0.895  
Viscosity Index: 97  
Viscosity @ 40 deg C: 138  
Flash Point COC: 200  
Viscosity @ 100 deg C: 13.9  
Pour Point (deg C): -30

SA Series Gear Oil Capacity	Imperial	Metric
SA3	.26 Gallons	1.0 Liters
SA5	.6 Gallons	2.4 Liters
SA6	.6 Gallons	2.4 Liters
SA6L	.3 Gallons	1.2 Liters
SA7	.7 Gallons	2.6 Liters
SA8	.7 Gallons	2.6 Liters
SA12	1.2 Gallons	4.5 Liters
SA16	1.7 Gallons	6.5 Liters
SA20	1.8 Gallons	7 Liters
SA30	2.9 Gallons	11 Liters

*The Bail Housing will need to be partially removed to allow access to all ports during oil change.*

Oil fill port is located in the first gearbox section directly underneath the hydraulic motor.

Oil Drain Port  
Note - the oil drain port will be in different locations depending on the model. It will be in the lower most port in the last section of the gearbox.



## **⚠ IMPORTANT!**

**DO NOT** overfill gearbox when replacing the gear oil. Excessive amount of gear oil will reduce the amount of room in the gearbox for expansion and cause damage to the seals.