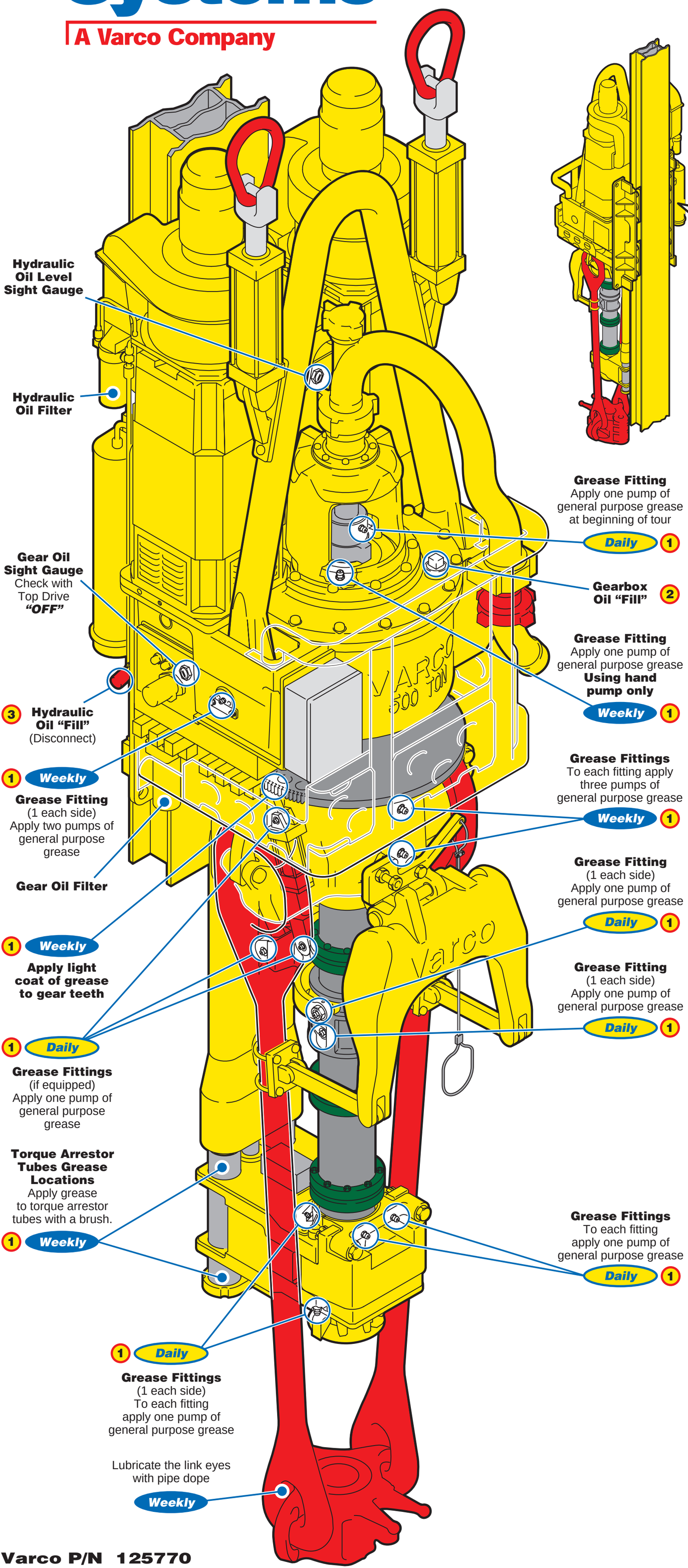
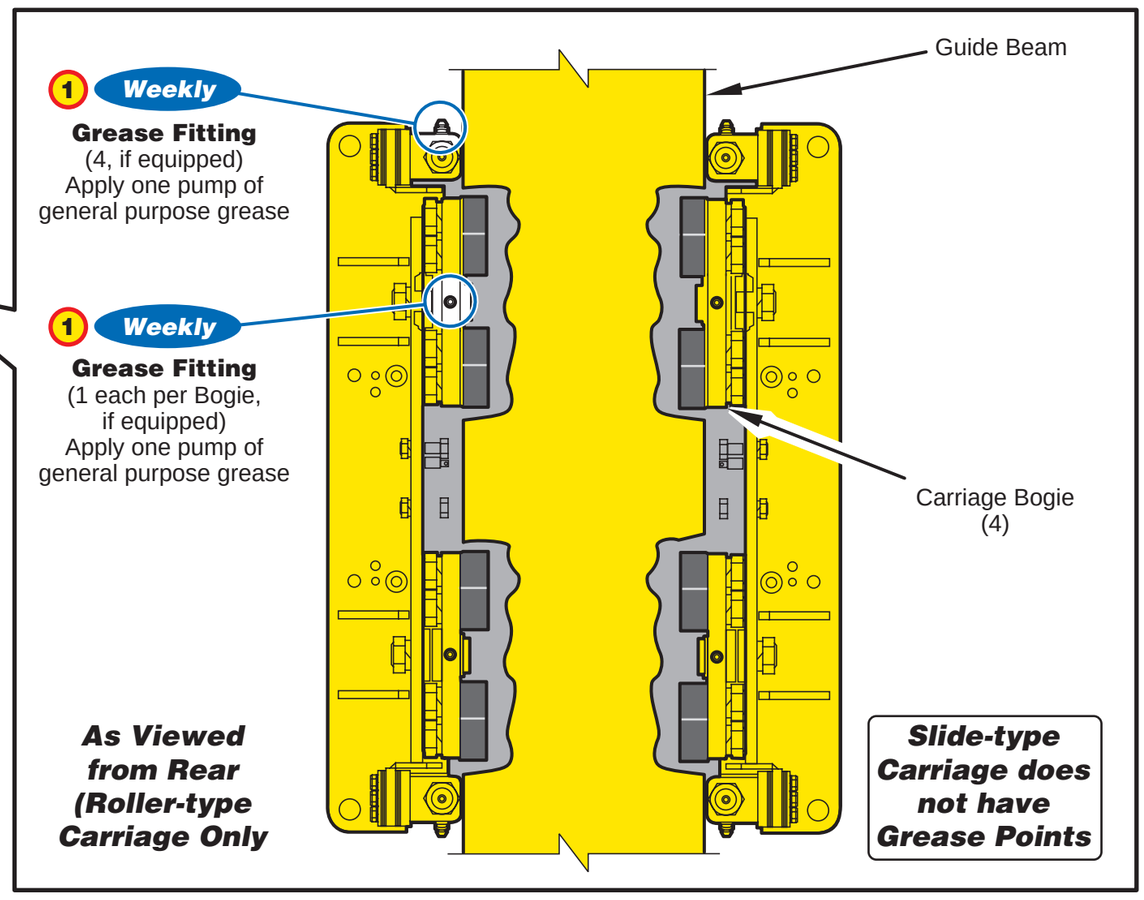
Varco Systems™
A Varco Company

TDS-11SA Lubrication and Maintenance Guidelines

See Service Manual for More Detail





Grease Lubrication Schedule

DESCRIPTION	NO. OF POINTS	DAILY	WEEKLY	TYPE
Wash Pipe Assembly	1	✔		1
Upper Bonnet Seal	1		✔	1
Bail Pins	2		✔	1
Rotating Link Adapter Gear	–		✔	1
Rotating Link Adapter	2		✔	1
IBOP Actuator Yoke and Cylinder Pins	5	✔		1
IBOP Actuator Cranks	2	✔		1
Stabilizer Bushing	4	✔		1
Clamp Cylinder Gate	2	✔		1
Carriage Assembly	8		✔	1
Torque Arrestor at Clamp Cylinder Area	4		✔	1
Elevator Link Eyes	4		✔	

See lubrication section of the TDS-11SA service manual for lubrication of electric motors

Oil Lubrication Schedule

DESCRIPTION	FREQUENCY	TYPE
Replace Gearbox Oil and Perform an Oil Analysis▲	1 x every 6 Months	2
Replace Gearbox Oil Filter	1 x every 3 Months	
Perform Hydraulic System Oil Analysis	1 x every 6 Months	3
Replace Hydraulic Fluid	1 x Year, or Earlier Based on Oil Analysis	3
Replace Hydraulic System Filter	1 x every 3 Months	

▲*Oil viscosity should be adjusted based on expected ambient conditions for next six months*

Recommended Lubricants

Lubricant Code and Type	1 General Purpose Grease		2 Gear Oil			3 Hydraulic Oil	
Ambient Temperature Range	Above -20°C (Above -4°F)	Below -20°C (Below -4°F)	Above 21°C (Above 70°F)	7° to 30°C (45° to 85°F)	-6° to 16°C (20° to 60°F)	-10° to 85°C (14° to 185°F)	-15° to 75°C (5° to 167°F)
Castrol	MP Grease	N/R	Alpha LS-320	Alpha LS-150	Alpha LS-68	Hyspin AWS-46	Hyspin AWS-32
Chevron	Avi-Motive	Avi-Motive W	NL Gear 320	NL Gear 150	NL Gear 68	AW Hyd oil 46	AW Hyd oil 32
Exxon	Lidok EP2	Lidok EP1	Spartan EP320	Spartan EP150	Spartan EP68	Nuto H46	Nuto H32
Gulf	Gulf Crown EP32	Gulf Crown EP31	EP Lube HD320	EP Lube HD150	EP Lube HD68	Harmony 46AW	Harmony 32AW
Mobil	Mobilux EP2	Mobilux EP1	MobilGear 632	MobilGear 629	MobilGear 626	DTE 25	DTE 24
Shell	Alvania EP2	Alvania EP1	Omala 320	Omala 150	Omala 68	Tellus 46	Tellus 32
Statoil	Uniway EP2N	Uniway EP1N	Loadway EP320	Loadway EP150	Loadway EP68	Hydraway HMA 46	Hydraway HMA 32
Texaco	Multifak EP2	Multifak EP1	Meropa 320	Meropa 150	Meropa 68	Rando oil HD46	Rando oil HD32
Total	Multis EP2	Multis EP1	Carter EP 320	Carter EP 150	Carter EP 68	Azolla ZS 46	Azolla ZS 32
Union	Unoba EP2	Unoba EP1	Extra Duty NL6EP	Extra Duty NL4EP	Extra Duty NL2EP	Unax AW46	Unax AW32
NGLI	2	1	N/R	N/R	N/R	N/R	N/R
AGMA	N/R	N/R	6EP	4EP	2EP	2	N/R
ISO Viscosity Grade	N/R	N/R	320	150	68	46	32

General Condition Checks Daily

1. Check for missing lockwire
2. Check for loose or broken parts and leaks
3. Check for damaged guide beam rollers
4. Check condition of both filter gauges
5. Check for missing cotter pins
6. Check for loose electrical connectors and check lockwire
7. Check gear oil and hydraulic fluid levels