

5.7. Replenishments

General information

The following tables show the type and brands of expendable fluids (fuel, oil, grease, etc.) supplied with the machine by the manufacturer, Casagrande S.p.a..

The expendable fluids indicated are valid if the ambient temperature where the machine operates is between -10 °C and +40 °C. Contact Casagrande S.p.a. before using the machine in conditions different from those indicated.

Automatic lubrication system

SYSTEM OR UNIT	FLUID	APPROXIMATE CAPACITY [kg]	TYPE	CHARACTERISTICS
Tank for automatic lubrication system	diesel fuel	8	SP GR MU 00 AGIP	see table E1

Basic machine

SYSTEM OR UNIT	FLUID	APPROXIMATE CAPACITY [l]	TYPE	CHARACTERISTICS
Fuel tank	diesel fuel	307		see table L
Hydraulic oil tank	oil	580	ARNICA 46 AGIP	see table A
Hydraulic system	oil	300	ARNICA 46 AGIP	see table A
Diesel engine	oil	19 (filter change also considered)	SIGMA TURBO 15W40 AGIP	see table B
Engine radiator	coolant	18 (complete water level)	ANTIFREEZE EXTRA AGIP	see table G
Track reduction gear	oil	6	BLASIA 220 AGIP	see table C
Upperstructure slewing reduction gear	oil	16	BLASIA 220 AGIP	see table C
Lubrication of open air gears	oil		FIN 332/F AGIP	see table F
Greasing spot	grease		GR MU EP2 AGIP	see table E
Ropes	oil		FIN 332/F AGIP	see table F

Winches

SYSTEM OR UNIT	FLUID	APPROXIMATE CAPACITY	TYPE	CHARACTERISTICS
		[l]		
Front winch (standard)	oil	3	ROTRA 80W-90 - AGIP	see table M
Front winch (free fall winch)	oil	see ZOLLERN manual attached	see ZOLLERN manual attached	see ZOLLERN manual attached
Rear winch	oil	8	ROTRA 80W-90 - AGIP	see table M

Rotary

SYSTEM OR UNIT	FLUID	APPROXIMATE CAPACITY	TYPE	CHARACTERISTICS
		[l]		
Rotary table - coupling chamber	oil	85 2,5 + 2,5	BLASIA 220 - AGIP	see table C
Rotary reduction gears	oil	6 + 1,5 + 6	BLASIA 220 - AGIP	see table C
Rotary and applications - greasing spots	grease		GR MU EP2 - AGIP	see table E
Telescopic kelly bar swivel	grease		GR MU EP2 - AGIP	see table E

Kelly

SYSTEM OR UNIT	FLUID	APPROXIMATE CAPACITY	TYPE	CHARACTERISTICS
		[l]		
Kelly rotation reduction gear	oil	5	BLASIA 220 - AGIP	see table C
Lubrication of open air gears	oil		FIN 332/F - AGIP	see table F

Characteristics of expendable fluids

Fluids to be subsequently added by the customer must meet the characteristics indicated in the following tables.

A	ARNICA 46	Oil
CHARACTERISTICS		
Viscosity at 40 °C	[mm ² /s]	45
Viscosity at 100 °C	[mm ² /s]	8,3
Viscosity index		164
Flash point V.A.	[°C]	215
Pour point	[°C]	-36
Volumetric mass at 15 °C	[kg/l]	0,870
SPECIFICATIONS AND APPROVALS		
<ul style="list-style-type: none"> - ISO-L-HV - AFNOR NF E 48600 HV - BS 4231 HSE - DIN 51524 t3 HVLP - CETOP RP 91 H HV - CINCINNATI P 68, P69, P70 - DENISON HF 0 - VICKERS M-2950 		

B	SIGMA TURBO 15W-40	Oil
CHARACTERISTICS		
Viscosity at 100 °C	[mm ² /s]	13,7
Viscosity at 40 °C	[mm ² /s]	100
Viscosity at -15 °C	[cP]	3300
Viscosity index		138
Flash point V.A.	[°C]	230
Pour point	[°C]	-27
Volumetric mass at 15 °C	[kg/l]	0,885
SPECIFICATIONS AND APPROVALS		
<ul style="list-style-type: none"> - ACEA E3-96 - API Service CG-4/SG - CCMC D5, PD-2 - US Department of the Army MIL-L-2104 E - US Department of the Army MIL-L-46152 E 		