REPAIR MANUAL

SKID STEER/COMPACT TRACK LOADER

410
420
420CT
SERIES 3

87634765 NA

Issued 01Jan08

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TYPE 1-4

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410/420 SKID STEER AND 420CT COMPACT TRACK LOADER
Repair Manual
Mechanical and Pilot Control Machines
(Tier 3 and Cab Up-Grade Machines)
Bur 87634765
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Section 1001

FLUIDS AND LUBRICANTS

CNH AMERICA LLC
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CAPACITIES AND LUBRICANTS

FUEL TANK
- Capacity ..... 83.3 litres (22 U.S. gallons)
- Specifications ..... See diesel fuel specifications on page 5

COOLING SYSTEM
- Capacity ..... 17 litres (17.9 quarts)
- Recovery bottle capacity ..... 2 litres (2.1 quarts)
- Specifications ..... 50% water and 50% ethylene glycol

HYDRAULIC SYSTEM
- Capacity - Total System ..... 50.2 litres (13.3 gallons)
- Capacity - Reservoir ..... 32.4 litres (7.1 gallons)
- Specifications ..... Case Akcela No. 1 Engine Oil SAE 10W30

CHAIN COMPARTMENTS
- Capacity - Each Side ..... 5.7 litres (6.0 quarts)
- Specifications ..... Case Akcela No. 1 Engine Oil, SAE 10W30

FINAL DRIVE (CT MODELS)
- Capacity - Each Side ..... 0.55 L (0.58 quarts)
- Specifications ..... CASE AKCELA GEAR LUBE SSL 75W-90 (Synthetic)

BATTERY
- Quantity ..... As required
- Specifications ..... Distilled water

GREASE FITTINGS
- Quantity ..... As required
- Attachments (If equipped) ..... Quantity as required
- Specifications ..... Case molydisulfide grease

ENGINE CRANKCASE OIL (410/420 and 420CT MACHINES)
- Capacity - with filter change ..... 8.7 litres (9.2 quarts)
- Capacity - without filter change ..... 8.5 litres (9 quarts)
- Specifications ..... Case Akcela No. 1 Engine Oil SAE 10W-30 (API service CH-4) ..... (See Oil Viscosity/Temperature Ranges Chart on page 4)

ENGINE CRANKCASE OIL (430/440 and 440CT MACHINES)
- Capacity - with filter change ..... 12 litres (12.7 quarts)
- Specifications ..... Case Akcela No. 1 Engine Oil SAE 10W-30 (API service CH-4) ..... (See Oil Viscosity/Temperature Ranges Chart on page 4)

ENVIRONMENT

Before you service this machine and dispose of oil, fluids and lubricants, always remember the environment. Do not put oil or fluids into the ground or into containers that can leak. Check with your local environmental, recycling center or your Case dealer for correct disposal information.

ENGINE LUBRICATION

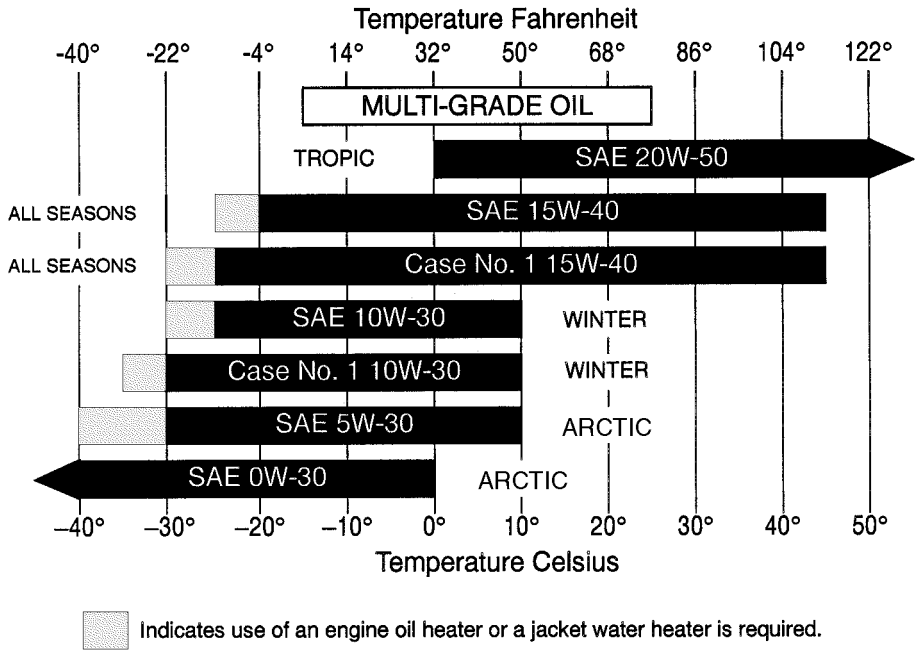
Engine Oil Selection

Case Akcela No. 1 Engine Oil is recommended for use in your Case Engine. Case Akcela Engine Oil will lubricate your engine correctly under all operating conditions.

See the chart below for recommended viscosity at ambient temperature ranges.

NOTE: *Do not put Performance Additives or other oil additive products in the engine crankcase. The oil change intervals given in the operating manual are according to tests with Case lubricants.*

Oil Viscosity/Temperature Ranges



BS99N019

DIESEL FUEL SYSTEM

Use No. 2 diesel fuel in the engine of this machine. The use of other fuels can cause the loss of engine power and high fuel consumption.

In very cold temperatures, a mixture of No. 1 and No. 2 diesel fuels is temporarily permitted. See the following:

NOTE: *See your fuel dealer for winter fuel requirements in your area. If the temperature of the fuel lowers below the cloud point (wax appearance point), wax crystals in the fuel will restrict the fuel filter and cause the engine to loose power or not start.*

The diesel fuel used in this machine must meet the specifications below, “Specifications for Acceptable No. 2 Diesel Fuel” or Specification D975-81 of the American Society for Testing and Materials.

Fuel Storage

If you keep fuel in storage for a period of time, you can get foreign material or water in the fuel storage tank. Many engine problems are caused by water in the fuel.

Keep the fuel storage tank outside and keep the fuel as cool as possible. Remove water from the storage container at regular periods of time.

Fill the fuel tank at the end of the daily operating period to prevent condensation in the fuel tank.

Specifications for Acceptable No. 2 Diesel Fuel

API Gravity, Minimum	34
Flash Point, Minimum	60° C (140° F)
Cloud Point (wax appearance point), Maximum	-20° C (-5° F)
Pour Point, Maximum	-26° C (-15° F)
Distillation Temperature, 90% Point	282 to 338° C (540 to 640° F)
Viscosity, at 38° C (100° F)	
Centistokes	2.0 to 4.3
Saybolt Seconds Universal	32 to 40
Cetane Number, Minimum	43 (45 to 55 for winter or high altitudes)
Water and Sediment, by Volume, Maximum	0.5 of 1%
Sulphur, by Weight, Maximum	0.5 of 1%
Copper Strip Corrosion, Maximum	No. 2
Ash, by Weight, Maximum	0.1 of 1%

NOTES

Section 1001

FLUIDS AND LUBRICANTS

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