



AGIP ARNICA oils are petroleum base lubricants specially developed for use in hydraulic systems requiring fluids possessing an extremely high Viscosity Index and a very low pour point for correct operation (ISO-L-HV classification).

## CHARACTERISTICS (TYPICAL FIGURES) AGIP ARNICA

Characteristics	ASTM	Unit	ISO VG GRADE	
			46	68
Density at 15°C	D 4052	kg/l	0.875	0.878
Viscosity at 100°C	D 445	mm <sup>2</sup> /s	8.6	11.5
Viscosity at 40°C	D 445	mm <sup>2</sup> /s	48	70
Viscosity Index	D 2270		158	159
Flash Point, COC	D 92	°C	226	230
Pour Point	D 97	°C	-30	-27

## PROPERTIES AND PERFORMANCES

- The extremely high Viscosity Index possessed by all grades of AGIP ARNICA minimizes changes in viscosity as a result of temperature variations.
- The VI improver adopted is highly resistant to operating loads, and so there is no appreciable decrease in viscosity during service.
- The low pour point of all grades permits use for a wide range of applications including those where low working temperatures are encountered.
- AGIP ARNICA oils have good thermal and oxidation stability thus ensuring long life of the oil.
- Their high hydrolitic stability minimizes the formation of sludges in the presence of water.
- AGIP ARNICA oils have good antiwear properties thus ensuring efficiency and long life of all moving parts of hydraulic circuits. Vanes and ring weight loss in the Vickers test is less than 48 mg. ARNICA 32 passes the 10th stage of the FZG test, while ARNICA 46 and 68 passes the 11th.
- Their antirust properties ensure effective protection and preservation of all metallic components in the circuit.
- They also have very good demulsibility, which facilitates spontaneous separation of any water which may become mixed with the oil.

## SPECIFICATIONS

AGIP ARNICA oils meet the requirements of the following specifications :

- ISO-L-HV
- AFNOR NF E 48603 HV
- BS 4231 HSE
- DIN 51524 teil 3 HVLP
- CETOP RP 91 H HV category

- CINCINNATI P-68, P-69 and P-70
- DENISON HF 0
- VICKERS M-2950

## APPLICATION

AGIP ARNICA oils are especially suitable as hydraulic fluid in:

- hydraulic and electrohydraulic servo controls;
- shock absorbers and other hydraulic equipment subject to wide temperature variations;
- hydraulic valve controls;
- hydraulic signalling systems;
- shipboard equipment;
- control gear of automatic hydro-electric installations.

The use of AGIP ARNICA oils is also recommended, as an alternative to normal hydraulic oils, for the control and power transmission systems of types of machinery which, due to design or heavy-duty operating conditions, require oils with an extremely high Viscosity Index.

- In addition AGIP ARNICA oils are especially recommended for many delicate and precision machines and instruments where variations in braking torque caused by changes in viscosity must be contained within the closest possible limits.

## APPROVAL

AGIP ARNICA oils are approved by the following manufacturers:

- ABEX DENISON
- CINCINNATI MILACRON
- COMMERCIAL HYDRAULICS
- HYDROMATIC (REXROTH)
- LINDE
- VICKERS
- AGIP ARNICA 46, 68 are approved by Danieli according to Standard 0.000.001 specification.