



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          |                    | 15    | 22    | 32    | 46    | 68    | 100   |
|----------------------|--------------------|-------|-------|-------|-------|-------|-------|
| Viscosity at 40°C    | mm <sup>2</sup> /s | 15    | 22    | 32    | 45    | 68    | 100   |
| Viscosity at 100°C   | mm <sup>2</sup> /s | 3,77  | 4,94  | 6,40  | 7,97  | 10,7  | 14,1  |
| Viscosity Index      | -                  | 147   | 157   | 157   | 150   | 147   | 143   |
| Flash Point COC      | °C                 | 180   | 192   | 202   | 215   | 218   | 225   |
| Pour Point           | °C                 | -36   | -39   | -36   | -36   | -33   | -30   |
| Mass density at 15°C | kg/l               | 0,855 | 0,857 | 0,865 | 0,870 | 0,878 | 0,885 |

## PROPERTIES AND PERFORMANCE

- 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 hydrolytic 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 104C test is around 25 mg. AGIP ARNICA 32 passes the 11<sup>th</sup> stage of the FZG test, while higher grades pass the 12<sup>th</sup>. AGIP ARNICA also pass the following pump tests: EATON VICKERS 35VQ25 (vane pump), DENISON T6C (vane pump), DENISON P-46 (axial pistons pump) and DENISON T6C-20 (hybrid pump).
- 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.
- AGIP ARNICA have excellent filterability performance also in presence of water, with very thin filters (3 microns).

## APPLICATIONS

AGIP ARNICA oils are especially suitable as hydraulic fluid in:

- hydraulic and electro-hydraulic 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.

## SPECIFICATIONS AND APPROVALS

AGIP ARNICA oils meet the requirements of the following classifications and specifications and/or are approved by the following manufacturers:

- ISO-L-HV
- ISO 11158
- AFNOR NF E 48603 HV
- AISE 127
- ATOS Tab. P 002-0/I
- BS 4231 HSE
- CETOP RP 91 H HV
- CINCINNATI LAMB LANDIS - P 68, P 69 e P 70
- COMMERCIAL HYDRAULICS
- Danieli Standard 0.000.001 (AGIP ARNICA 22, 46, 68)
- EATON VICKERS I-286-S3
- EATON VICKERS M-2950
- DIN 51524 t.3 HVLP
- LINDE
- PARKER HANNIFIN (DENISON) HF-0
- REXROTH RE 90220-1/11.02
- SAUER-DANFOSS 520L0463