



## GETTING TO KNOW HYDRAULICS

### HYDRAULIC OILS

- ▶ **R&O** – Stand for Rust & Oxidation; also contains AntiFoam additives.
  - R&O is approximately a 10 weight oil with the additives
  - Suitable for use in applications where a premium R&O product is not required.
  
- ▶ **AW** – Stand for Anti-Wear; also protects against Rust & Oxidation, and contains AntiFoam additives.
  - AW32 is approximately a 10 weight oil with the additives
  - AW46 is approximately a 15 weight oil with the additives
  - AW68 is approximately a 20 weight oil with the additives
  - AW –provides many of the advantages of premium hydraulic oil at a moderate price. Suitable for use in applications where a Premium AW product is not required.

All are blended with highly refined naphthenic/paraffinic base oils.

### FREQUENTLY ASKED QUESTIONS

- ▶ **Q) What is the difference between AW32, AW46, and AW68 Hydraulic Oils?**
  - A) The weights (10, 15 & 20) Sometimes called (ISO32, ISO46, ISO68)
  
- ▶ **Q) What is the difference between Premium AW32 and Quality AW32?**
  - A) Quality AW32 is approximately a 1500-hour oil, whereas, Premium AW32 has increased oxidation stabilizers making it approximately a 5000-hour oil.

### ECONOMY TRACTOR HYDRAULIC FLUID

- ▶ **TRACTOR HDYRAULIC 303** – Gives excellent results in the areas of brake squawk, PTO clutch performance, rust protection, water sensitivity, extreme pressure/anti-wear properties and foam suppression.
  - ▶ Blended from quality virgin base oils, w/high-performance additives.
  - ▶ Approximately a 20 weight with the additives
  - ▶ Sometimes called '303'.

- ▶ Suitable for older tractors, or where a ‘price’ fluid is desired.
- ▶ Recommended as a replacement for the following manufacturers where a tractor hydraulic fluid is recommended:
 

▶ Allis Chalmers	J.I Case/David
▶ Ford Tractor	Oliver
▶ International Harvester	Allison
▶ John Deere 303	Caterpillar
▶ White	Deutz
▶ Massey Ferguson	

## PREMIUM TRACTOR HYDRAULIC FLUID

- ▶ **PREMIUM TRACTOR FLUID** – Gives excellent results in the areas of transmission lubrication, differential and final drive gears. Serves as a hydraulic medium, power steering fluid, power brake and power take-off fluid in farm tractors.
  - ▶ Blended from highly refined base oils, w/superior additives.
  - ▶ **Approximately a 10W-20 weight with the additives**
  - ▶ Sometimes called ‘J20C’.
  - ▶ Recommended for most newer tractors, however can be used for older models; also safe to use - if unsure which fluid to use. Meets the requirements of the following manufacturers’ specified products:

- |   |                                |
|---|--------------------------------|
| ▶ Allis Chalmers PF-821 XL  | Caterpillar TO2                |
| ▶ Sunstrand HMS-103   | Oliver Type 55                 |
| ▶ IH Hy-Tran, Spec. B-6   | Vickers                        |
| ▶ Allison C-3, C4   | Kubota UDT                     |
| ▶ Deutz HTF PF821XL   | White Q1722, Q1826             |
| ▶ Versatile Gear/Hyd. Trans. Fluid  | Steiger Hydraulic Trans. Fluid |
| ▶ Ford Tractor M2C14B, M2C48B, M2C134B, M2C134C, M2C134D, M2C159B1, M2C159B2            |                                |
| ▶ J.I Case/David Brown J1C-143, 144, 145, 185, MS-1204                                  |                                |
| ▶ Massey Ferguson M-1110, M-1127A, M-1127-B, M1129-A, (Permatran II), M-1141 (Permatran |                                |
| ▶ John Deere J20C, Quatrol, J20A (Hygrad 303), J14B, J14C, J21A, 303                    |                                |

## FREQUENTLY ASKED QUESTIONS

- ▶ **Q) What is the difference between 303 Tractor Fluid and Premium Tractor Fluid?**  
*f* A: The 303 Tractor Fluid is for older tractors, out of warranty, or where the owner wants a lower cost tractor fluid. The Premium Tractor Fluid meets the more recent requirements of tractor manufacturers.
  - ▶ Note: Premium Tractor Fluid can be used in older tractors, but, the 303 Tractor Fluids should not be used in newer tractors, as it may void warranty.
- ▶ **Q) What is the difference between the names: Hydraulic Oil and Hydraulic Fluid?**  
*f* A: No difference – just terminology.
  - f* Hydraulic Fluids work on straight hydraulic systems, such as: Backhoes, hydraulic jacks, hydraulic vane & gear pumps, and hydraulic reservoirs.
  - f* Tractor Fluids function as: a transmission fluid, wet brake fluid, power steering fluid, and, hydraulic oil for the power take off.