

# SAFETY CONSIDERATIONS

Fabricators, end users, and installers should be aware of the safety factors when handling or when in proximity of hydraulic hose assemblies. The following are some potential conditions that can lead to personal injury and property damage.

- 1) As certain fluids may permeate the hose cover, the hose should always be used in well-ventilated areas.
- 2) Hydraulic systems generally operate at very high pressures. Any leak of pressurized fluid can penetrate the skin, causing severe tissue damage and burns. Consider the use of guards or shields around the hose assembly to reduce the risk of injury.
- 3) Whipping Hose – Under high operating pressures, the hose and/or fitting can come loose or blow, causing the end of the hose to whip with great force. Again, the hose assembly should be shielded or guarded, even possibly secured, to avoid injury or damage from this whipping action.
- 4) Hydraulic fluids are flammable and can explode with a source of ignition. To avoid possible injury or property damage, care should be taken to eliminate ignition sources and to properly route the hose assembly to minimize the chance of combustion.
- 5) Most all hose is conductive. In some cases a non-conductive hose is required. To avoid electrocution or other serious mishap, the correct hose specification, either conductive or nonconductive, should be used.
- 6) Should a hydraulic hose assembly fail, loss of hydraulic pressure will affect the operation of equipment. Care should be taken that a sudden power loss of the equipment will not cause personal injury.
- 7) When air or gaseous materials are being conveyed, the correct hose should be used. A pin-perforated cover may be required. Perforations in the cover will prevent permeated gases from accumulating and blistering the cover. Check Goodyear for the correct hose specification.
- 8) Extreme care should be used when operating handheld hydraulic tools where the operator is in proximity to the hydraulic hose assembly. The following steps should be taken to avoid injury.
  - a. Use strain relievers on each end of the hose to prevent kinking, excessive bending, or stress on the hose at the coupling.
  - b. Never use the hose assembly to pull or carry the tool.
  - c. Exposed hose near the operator should be guarded in case hose assembly fails to prevent injury from high pressure or high temperature fluid.
  - d. Operators of the tool should be protected with the required safety clothing considering the job and fluids being used.
  - e. The hose should be protected against any external damage.
- 9) Hose assemblies should be properly routed to avoid strain and the possibility of the hose bursting. Proper routing will also protect the assembly against flex fatigue, excessive heat, or abrasion.
- 10) When selecting a hose style and assembly, check for hose compliance to all relevant government, industry, and safety standards or regulations.