Hydraulic System Maintenance Requirements

This document contains information of vital importance concerning the inspection and repair of hydraulic system components. If damaged hydraulic system components are not corrected, they can lead to failures or fires causing death, serious injury or property damage.

It is important that the machine be inspected regularly. Any damaged hydraulic system components must be repaired immediately by qualified repair technicians. The following information is provided to aid maintenance personnel in the inspection of the hydraulic system and identification of areas that may require attention. All safety rules and repair practices included in the other sections of the maintenance manual must be followed.

Hydraulic System Maintenance Requirements

WARNING: Death or serious injury may occur from fire. Improper maintenance of the hydraulic system may result in leaks which can cause fires.

- **Regularly inspect and maintain hydraulic hoses, valves, and hydraulic components as outlined.**
- **Ensure that hoses are properly routed and secured after servicing the truck.**
- **Keep vehicle clean and free of grease, oil or dirt build up that can act as fuel for a fire.**

WARNING: Death or serious injury may occur from catastrophic failure. Improper maintenance of the hydraulic system may lead to failure of truck functions which can affect proper truck operation.

Hydraulic system components must be regularly inspected, maintained, and repaired to ensure safe operation of powered industrial trucks. The following requirements are provided to aid maintenance personnel in proper hydraulic system maintenance practices. These following requirements are in addition to the routine daily inspections in the operator's guide, maintenance manual, and safety literature included with the truck.

Additionally, the following recommendations for inspection, maintenance and repair apply to other systems or components on the truck which contain or transmit flammable materials. These systems include engine lubrication systems and fuel systems. If not regularly inspected and properly maintained, similar hazards exist which may lead to death, serious injury or property damage due to fires.

Inspection

In addition to the daily inspection required by OSHA, a thorough visual inspection of all hydraulic hoses, valve assemblies and hydraulic connections should be made every 6 months or 1,500 hours of truck operation to check for damage or wear. Hydraulic hoses and connections should be inspected for damage and wear any time a major component is removed (i.e. engine, transmission, operator base, etc.) or when a hydraulic problem occurs.

Prior to any inspection, thoroughly clean the vehicle paying particular attention to the areas to be inspected.

Some areas requiring special attention during the inspection include:

- Areas where there is relative movement between components (i.e. engine / frame)
- Areas where hoses run around corners, edges, or through holes
- Areas where hoses cross
- Areas where components are exposed to high temperatures (i.e. near exhaust components)
- Areas where components are secured with clamps, straps, ties, etc.
- Adapters/ Connectors / connections between hoses and components
- Hoses in cable and hose tracks or over rollers
- Fuel lines and connections

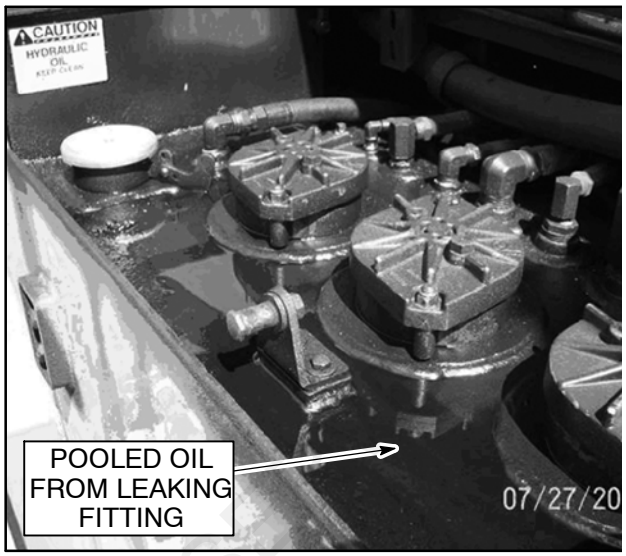
Problems requiring maintenance include:

- Build up of combustible material on hoses, valves or vehicle components
- Worn hose coverings
- Leaking hoses/connections
- Loose hose or adapter connections
- Improper repairs or additions
- Corrosion
- Improperly secured or unsecured hoses
- Excessive vibration of hydraulic or fuel hoses and components

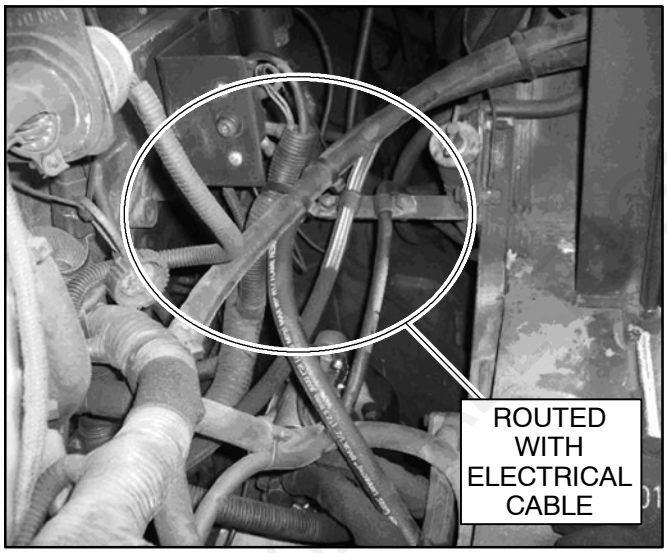
NOTE: *Any damaged hydraulic system or fuel system components must be repaired or replaced before the unit is returned to service.*

Examples of hydraulic system maintenance problems are shown in the illustrations below:

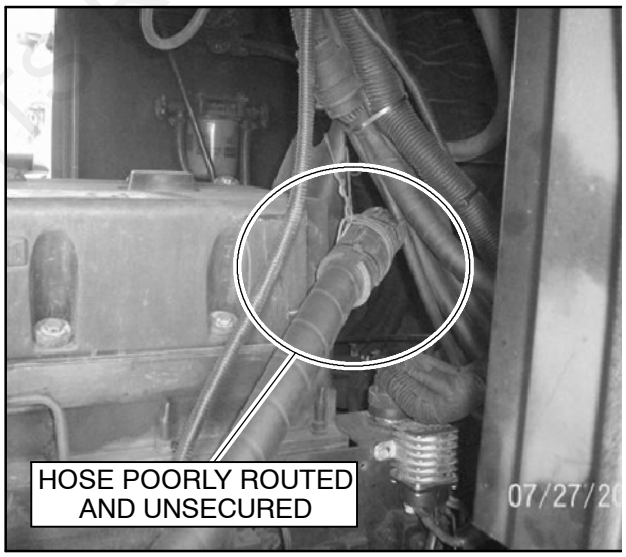
Build up of Combustible Materials on hoses or components



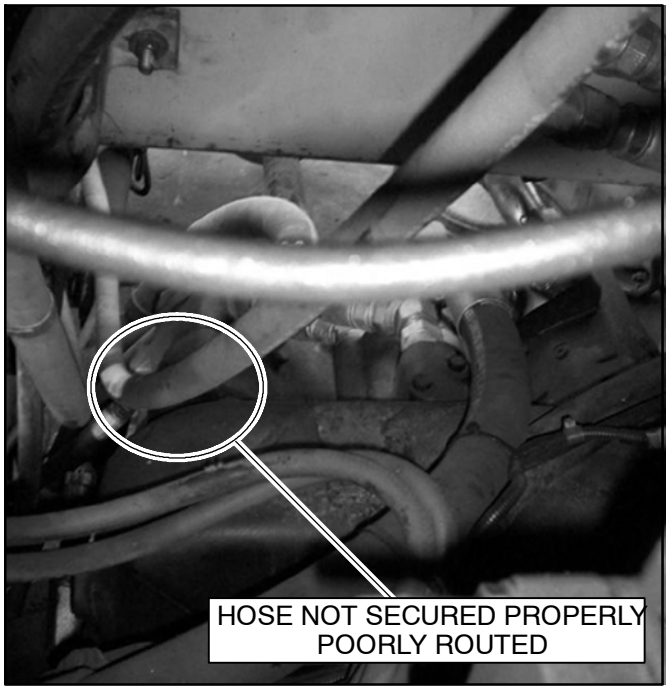
Leaking Hoses or Connections



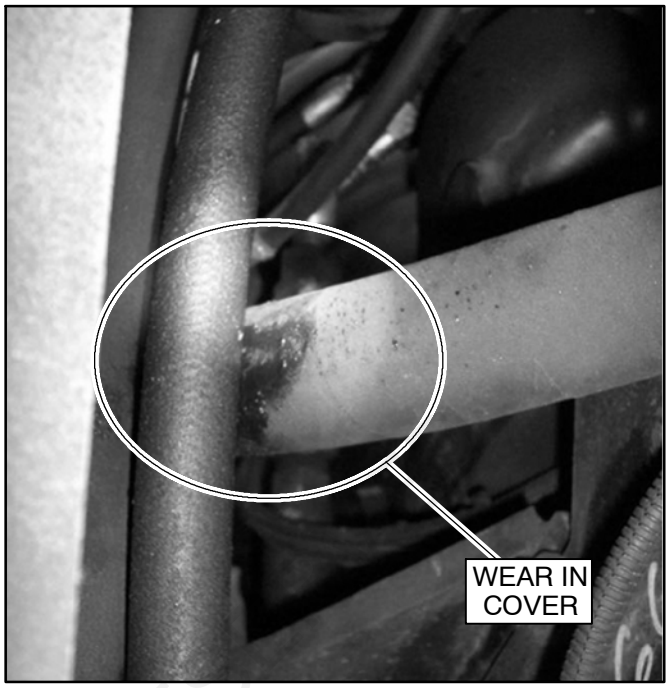
Improper Routing of Hydraulic Hoses and Wiring



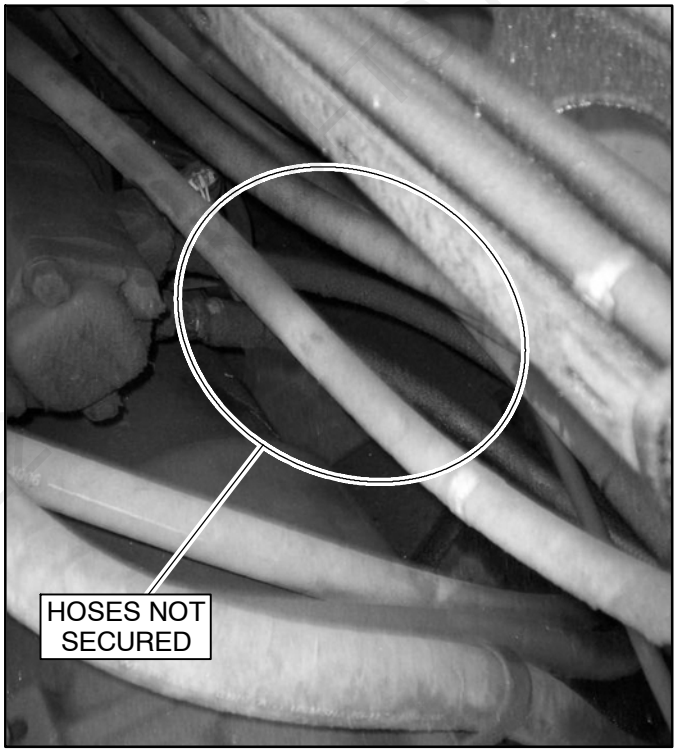
Improper Routing of Hydraulic Hoses or Improperly Secured Hoses



Poor Routing of Hydraulic Hoses
or Unsecured Hoses



Worn Hose Coverings



Improperly Secured or Unsecured Hoses

Corrective Actions

WARNING: Death or serious injury may occur from improper maintenance practices.

- **Use only genuine Taylor replacement parts. Lesser quality parts may fail.**
- **Under no circumstances should the hydraulic system be modified in a manner which affects safe operation unless prior written approval is granted by Taylor Machine Works. (Ref OSHA 29 CFR 1910.178 (a)(4).**
- **Only trained and qualified maintenance personnel should make inspections and repairs to the hydraulic system and components.**

NOTE: *There are many types of aftermarket hydraulic components which may or may not meet OEM specifications, quality, and design requirements. Always use genuine Taylor replacement parts.*

Corrective actions to follow to repair hydraulic system components include:

- Keep the vehicle free of grease, oil, and dirt build up by regular thorough cleaning.
- Use genuine Taylor replacement parts (hoses, adapters, clamps, sheathing, etc.).
- Properly install connectors / adapters on hoses. Use proper crimping tools to attach connectors and adapters to hoses.
- Remove and replace damaged hoses. Replace hoses with OEM hose assemblies.
- Never use hoses/connectors/adapters that are not approved by TMW.
- Use properly sized connectors/adapters for hose size.
- Never replace a hose with a hose of lower pressure rating.
- Maintain spacing between hoses and moving parts.
- Maintain spacing between hoses and wiring.
- Avoid hoses crossing over each other at perpendicular angles.
- Always use properly sized clamps to firmly secure hoses.
- Check the integrity of connectors/adapters and replace if necessary.
- Replace missing clamps.
- When securing replacement hoses, use common sense to minimize chaffing.
- Use existing clamping points when possible.
- Properly route hoses during repairs.
- Use rubber grommets to protect hoses routed through holes.
- Route hoses away from hot surfaces.
- Keep electrical wires and harnesses separated from hydraulic hoses.

Taylor Hydraulic Part Numbers (Commonly Used Hydraulic Maintenance Repair Parts)

Part Number	Part Description
2000-346	Pressure Check - 1/4 NPT
2000-347	Pressure Check - 1/8 NPT
2000-258	Pressure Check - 7/16 SAE
2000-259	Pressure Check - 9/16 SAE
2954-536	Pressure Check - 9/16 ORS
2954-537	Pressure Check - 11/16 ORS
2954-538	Pressure Check - 13/16 ORS
2000-464	Test Hose - 1/4 NPT - 24"
2000-465	Test Hose - 1/4 NPT - 36"
2000-959	Test Hose - 1/4 NPT - 48"
2000-960	Test Hose - 1/4 NPT - 72"
1709-200	250" rubber hose clamp
1709-151	.38" rubber hose clamp
1709	.50" rubber hose clamp
1709-050	.56" rubber hose clamp
1709-055	.69" rubber hose clamp
1709-100	.75" rubber hose clamp
1709-105	.94" rubber hose clamp
1709-108	1" rubber hose clamp
1709-112	1.06" rubber hose clamp
1709-115	1.12" rubber hose clamp
1709-115	1.12" rubber hose clamp
1709-128	1.31" rubber hose clamp
1709-118	1.50" rubber hose clamp
1709-120	1.56" rubber hose clamp
1709-122	1.75" rubber hose clamp
1709-051	1.81" rubber hose clamp
1709-124	2" rubber hose clamp
1709-126	2.25" rubber hose clamp
1709-160	2.625" rubber hose clamp

Part Number	Part Description
1709-127	2.75" rubber hose clamp
1709-161	3.56" rubber hose clamp
1273-703	1/4 tap weld on boss
1316-024	3/8 tap weld on boss
1316-025	5/16 tap weld on boss
1709-908	4" hose hanging straps for clamping hoses
1709-909	6" hose hanging straps for clamping hoses
1709-907	8" hose hanging straps for clamping hoses
1709-904	12" hose hanging straps for clamping hoses
1709-905	16" hose hanging straps for clamping hoses
1709-906	20" hose hanging straps for clamping hoses
2000-713	Small hose protector shield
2000-714	Medium hose protector shield
2000-715	Large hose protector shield
2324-373	12" tie down straps for wiring
2324-374	18" tie down straps for wiring
2945-073	1" nylon abrasion sleeve
2945-074	1.59" nylon abrasion sleeve
2945-075	1.75" nylon abrasion sleeve
2945-076	2.38" nylon abrasion sleeve
2945-049	2.54" nylon abrasion sleeve
2945-099	1" nylon abrasion sleeve with Velcro
2945-101	1.5" nylon abrasion sleeve with Velcro
2945-059	2" nylon abrasion sleeve with Velcro
2945-095	3" nylon abrasion sleeve with Velcro
2945-096	4" nylon abrasion sleeve with Velcro

Notes: Complete replacement hose assemblies are available through all Taylor's normal service parts outlets.