Coupling Halves (Standard) Oil Tank or Coupling Assembly (Crashworthy) Sightgages (See figure 4-45.) Coupling Halves (Standard) or 3 Slower Air Inlet Hose Coupling Assembly (Crashworthy) Oil Cooling Turbine Fan (See figure 4-48.) **Turbine Duct Engine Breather Hose** Reducer Fitting (204-060-494-1) 16. Torquemeter Pressure Hose 17. Cooler Drain Valve Oil Pressure Transmitter Tube 18. Oil Cooler Oil Pressure Switch Thermal Bypass Valve Engine Oil Pressure Hose Engine Bleed Air Valve Oil Tank Vent Line 21. Oil Tank Drain Valve **Engine Oil Filter** Oil Scupper Drain Line Scavenge Pump Outlet Hose Oil Tank Return Line Oil Separator (Lubriclone) Coupling Halves (Standard) External Oil Filter 11.2. or Coupling Assembly (Crashworthy) Filter Outlet Hose 11.3. (See figure 4-48.) 11.4. Elbow, 45° Oil Pump Inlet Hose Coupling Halves (Crashworthy) 90° and Straight Torquemeter Vent Hose

Figure 4-18. Oil Supply and External Lines (Sheet 2 of 2)

### NOTE

If MWO 55-1520-210-30-39 has been accomplished the oil tank and engine oil pump inlet and outlet lines consist of self-sealing hoses and breakaway fittings. The fittings shear on impact and seal both the oil in the hose and the oil in the tank and engine.

# 4-79. Removal - Oil Lines, Hoses and Fittings.

#### NOTE

Remove hoses and tubing that may be damaged during removal of engine components. Before removing any tube or hose, be sure it is properly identified and its route understood for replacement in same manner. When possible, leave supporting brackets in place to simplify reinstallation.

- a. When removing or installing oil, or air hoses, do not apply torque to narrow hex nut of sleeve and nipple (figure 4-3). Apply torque to the wide hex nut only. When loosening or tightening wide hex nut, hold nipple or sleeve to prevent twisting of hose.
- b. Cap or cover openings immediately when disconnected, and take all possible precautions to prevent contamination or dirt from entering oil system.
- **4-80.** Cleaning Oil Lines, Hoses and Fittings. Clean oil lines, hoses and fittings with a clean dry cloth.

#### 4-81. Inspection - Oil Lines, Hoses and Fittings.

- a. Inspect metal lines and fittings for cracks, corrosion, scratches, dents, deformation, damaged threads and leakage. If crack is suspected, refer to TM 1-1520-256-23 AVUM/AVIM NDI procedures for UH-1 helicopter series.
- **b.** Inspect hose assemblies for signs of deterioration indicated by separation of the rubber cover or

braid from the inner tube, cracks, hardening, deformation, damaged threads and linkage.

c. Inspect couplings (items 11.5, 3, 24 and 12 in figure 4-18). Measure the wear on the breakaway pins using a feeler gage as follows:

#### NOTE

When attempting to measure the gap do not rock coupling halves back and forth. Apply an even pressure so that a consistent reading is obtained.

- (1) Apply pressure to coupling halves (as if to push them together). Measure and record the breakaway joint gap at each pin position with the coupling fully compressed.
- (2) Apply opposite pressure to the coupling halves (as if to pull them apart). Measure and record the breakaway joint gap at each pin position with the coupling fully extended.
- (3) If the difference is 0.045 inch or less at all locations, the coupling is serviceable. If the difference is greater than 0.045 at any of the three pin locations, or if any of the shear pins are missing, or if any of the shear pins are protruding past flush, the coupling needs to be replaced.

## NOTE

When installing coupling position the 90 degree coupling half so that the least amount of side load is placed on the breakaway coupling. Ensure that the clamp used to secure the oil line to the lower fuel filter is positioned as close to the breakaway coupling end of the oil line as practical to reduce vibration.

4-82. Repair or Replacement - Oil Lines, Hoses and Fittings.