

Benefits and Considerations Of a Tractor - Trailer ALS Combo

The benefits and considerations of a, “Tractor - Trailer ALS combo,” need to be carefully weighed prior to adapting this type of set up for a customer.

Benefits:

1. Lower cost of system
2. Shared pump and timer
3. Less wiring and connections
4. Lower general maintenance. (One pump to fill)
5. Cleaner looking install

Considerations:

1. Longer cycle and pause time are required
2. Mainline length & routing
3. Mainline expansion & size
4. Restrictions to lubricant flow
5. Number of lubrication points to be served
6. Pump capacity 40 cc's

Mainline expansion is the largest factor to consider in system design, i.e.

60 #3 injectors x .15cc's	= 9 cc's of grease
Hydraulic hose expansion 4cc's x 4 m	= 16 cc's
Nylon mainline 8mm O.D. 0.5 cc's x 20 m	= <u>10 cc's</u>
Total	= 35 cc's

If total mainline length exceeds 15 m (49ft) the ID of the mainline needs to be increased in size to permit lubricant flow to and from the injector manifolds during and after the cycle is completed.

With a tractor producing 120 – 125psi air pressure, there is sufficient air for the pump to deliver 950 – 1100psi of lubricant pressure in the system, with a depreciation of pressure observed at the manifold farthest away from the pump. This depreciation can be about 200 – 300psi.

Total number of injectors and the expansion rate of the mainline cannot exceed the total pump capacity; otherwise the pump will stroke out and produce no pressure.

The most important considerations of this system type is that the pump needs to come off pressure completely to allow the injectors to reload. This is time consuming. Pressure may not be entirely off before the next ALS cycle, so the injectors may not have had enough time to release and reload for the next cycle.

