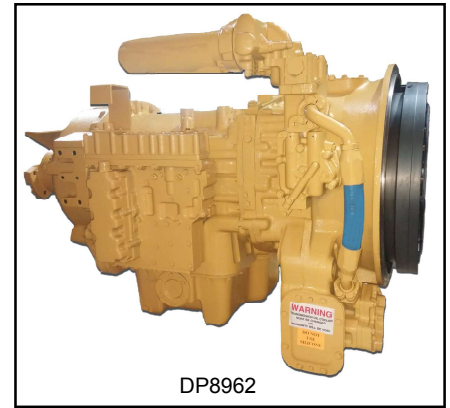


Allison S8610, DP8963, DP8962, DP8961 For Mobile and Stationary Applications with...

- engines up to 1104 hp (823 kW) net input power and up to 3300 lb-ft (4474 N•m) net input torque



SPECIFICATIONS

RATINGS

	Net Input Torque lb-ft (N•m)	Net Input Power hp (kW)	Turbine Torque lb-ft (N•m)	Vocations
S8610M, S8610A (Manual Electric & Automatic Electronic)	3300 (4474)	1104 (823)	5966 (8089)	Oil Field Pumps, Oil Field Service Rig, Fracking, Drilling, Heavy Trucks, Auger, Hauler
DP8962, DP8963 (Manual Electric & Automatic Electronic)	3300 (4474)	1104 (823)	5966 (8089)	Oil Field Pumps, Oil Field Service Rig, Fracking, Drilling, Heavy Trucks, Auger, Hauler

ENGINE INTERFACE

Acceptable full-load engine governed speed	1800 – 2300 rpm
Minimum engine idle speed range (with transmission in Drive)	550 rpm

MOUNTING

Direct:	SAE No. 0 flywheel housing with flexplate drive. Cradle mount using engine flywheel housing mounting pads and transmission rear cover mounting pads with 0.625-11 inch series bolts
Remote:	Side pads on transmission rear cover, plus front trunnion mount

TORQUE CONVERTER

Type One stage, three element, polyphase.

Model	Stall Torque Ratio	Kp-Factor* at Stall
TC-840	2.26	43.2 (37.1)
TC-860	2.33	40.7 (35.0)
TC-880	2.20	36.9 (31.7)
TC-890	1.86	32.6 (28.0)
TC-1070	1.68	28.5 (24.5)

*Kp-Factor defines torque converter capacity. Kp = the ratio of converter pump speed [rpm] divided by the square root of the pump torque [lb-ft (N•m)]

MECHANICAL RATIOS (Gear ratios do not include torque converter multiplication)

Range		
First	4.24 : 1	
Second	2.32 : 1	
Third	1.69 : 1	
Fourth	1.31 : 1	
Fifth	1.00 : 1	
Sixth	0.73 : 1	
Reverse	- 5.75 : 1	
Ratio Coverage	In forward range	5.81

CONTROL SYSTEM

Description Manual Electric, Automatic Electronic

Shift Sequences [C = Converter Mode (lockup clutch disengaged); L = Lockup Mode (lockup clutch engaged)]
1C-1L-2C-2L-3C-3L-4C-4L-5C-5L-6C-6L

Driver-to-Transmission Interface Customer furnished, cab-mounted shift selector

PHYSICAL DESCRIPTION

Length (engine housing to end of typical flange)		59.6 in (1514 mm)
Width		34.8 in (884 mm)
Depth (below horizontal center line)		20.9 in (531 mm)
Height (above horizontal centerline)	Basic:	14.6 in (371 mm)
	With direct mount filters:	18.6 in (472 mm)
Dry Weight	Basic: (includes retarder)	3700 lb (1678 kg)
	Top engine-driven PTO drive gear:	Add 30 lb (14 kg)
	Park Brake (17.25" x 5"):	Add 150 lb (68 kg)
	Remote Mount Provision:	Add 80 lb (36 kg)

SIDE ENGINE-DRIVEN POWER TAKE-OFF PROVISION

PTO drive		Engine-driven spur gear
PTO mounting pad		Eight-bolt, 4 o'clock position (as viewed from rear)
PTO drive gear ratio		1.13 x engine speed
PTO drive gear rating	Intermittent:	400 hp (298 kW)
	Continuous:	300 hp (224 kW)

LIGHT DUTY ACCESSORY DRIVE

Accessory drive		Engine-driven, internal spline
Accessory drive mounting pad	Location:	4 o'clock position (as viewed from rear of transmission)
	Orientation:	Toward rear of transmission
Accessory drive ratio		1.13 x engine speed
Accessory drive rating	Torque:	25 lb-ft (24 N·m)
	Power:	10 hp (7.5 kW)

TOP ENGINE-DRIVEN POWER TAKE-OFF PROVISION (OPTION)

PTO drive		Engine-driven spur gear
PTO mounting pad		Eight-bolt, 12 o'clock position (as viewed from rear)
PTO drive gear ratio		1.51 x engine speed
PTO drive gear rating	Intermittent:	400 hp (298 kw)
	Continuous:	300 hp (224 kw)

INPUT RETARDER PROVISION (OPTION)

Type		Integral, hydraulic. Coupling-type rotor between fixed stators
Capacity at 2100 rpm	Torque:	3451 lb-ft (4679 N·m)
	Power:	1380 hp (1029 kW)

OIL SYSTEM

Oil type	C-4	
Capacity, excluding external circuits	21.0 gallons (79 liters)	
Main circuit oil filter	Standard:	Manifold for full-flow, remote mounted, replaceable element
	Optional:	Direct-mount full flow, replaceable elements (2)
Cooler circuit oil filter (optional)	Replaceable element, remote-mounted	

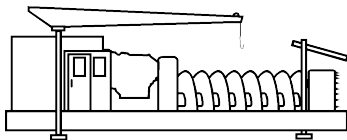
SPEEDOMETER PROVISION

Mechanical Drive	SAE "Heavy Duty" 5/32-inch; Ratio = 1.00 : 1	
	Location:	Transmission rear cover

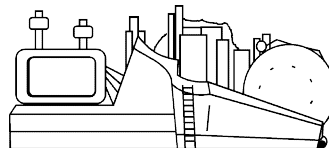
PARK BRAKE PROVISION

Type (customer supplied)	17.25 x 4-inch drum	
Capacity at lever apply force	200,000 lb-in at 800 lbf (22,600 N•m at 3560 N)	

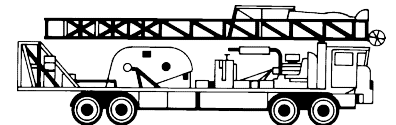
TYPICAL VEHICLE APPLICATIONS



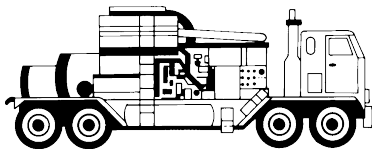
Auger



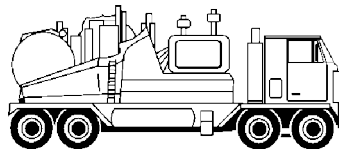
Winch



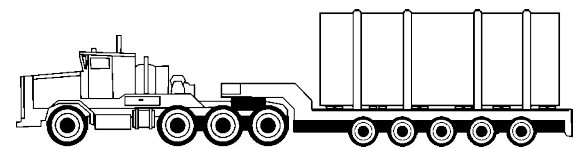
Oil Field Rig



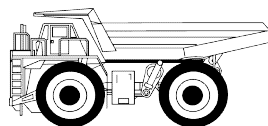
Oil Field Pumping Rig



Oil Field Draw Works



Heavy Equipment Transporter



Haul Trucks

