

**Dirty minds yield great ideas.** The team that engineered the Allison OFS transmission models didn't do it from an ivory tower. They got their boots and hands dirty in the process. They went into the field to see what they really had in the proven 700 Series. They talked to users. Then they figured out how to take a good thing and make it better. They were determined to advance this tried and true staple of the oil field to a technologically superior transmission. But they absolutely refused to sacrifice the renowned Allison dependability that had made the 700 Series the icon of the oil and gas industry. The OFS models are more than a worthy successor. They're both an evolutionary and revolutionary transmission.

**Stronger and smarter.** Understanding that oil and gas applications are about as continuous rugged-duty as you'll ever find, Allison engineered muscle into all critical wear components of the OFS transmission models. This alone would enhance service life. But then they did something brilliant — they made the transmission a lot smarter than other transmissions. Thanks to Allison's 4th Generation electronic controls, these transmissions work more precisely and more efficiently, reducing unnecessary shifts, thereby reducing stress and wear. The Allison OFS models are tough transmissions that know how to control themselves.

**The Allison OFS models perform the job with ease.**

The OFS models fit a lot of the most common applications. From drilling, cementing, fracturing, hoisting and pumping, the Allison OFS automatic transmissions offer the right horsepower ratings and ratios to make your specifying job easier. And, with installation options such as remote-mounting, the OFS models are at home in a vehicle, truck bed, skid or fixed platform.

The OFS models can also serve as automatic transmissions for vehicle propulsion. Taking a heavy vehicle off-road and into the back country can stress the driveline, cargo and driver. But the Allison Automatic's smooth, seamless shifts make negotiating rough terrain faster and easier, even for an inexperienced driver. And since it applies just the right amount of torque to the wheels for the engine speed and ground conditions, there's less chance of getting bogged down or hung up. So, not only will the Allison OFS models help you improve well productivity, it will help you get there faster.



4500 OFS w/o PTO

4700 OFS w/PTO



**Smooth operator.** The torque converter overcomes and eliminates the start-up shock associated with hoisting heavy loads for setting pipe. This greater control of loads enables the operator to make more connections in a shorter period of time. Again, it's about getting you into production quicker.

**But something's missing.** Allison Automatics don't have start-up clutches, so they don't have start-up clutch problems and burnouts. You don't have to worry about start-up clutch replacement, downtime and lost production.

Operators quickly appreciate the instantaneous and precise power shifts with no clutching whatsoever. The Allison Automatic is infinitely controllable, requires far less training to operate, and provides precise application of power for the workload and moment. And, with an Allison, it's impossible to clash gears.

**Employment opportunity.** More drivers and operators prefer Allison Automatics than all other automatic transmissions combined. Whether on a mobile rig where the Allison Automatic serves both propulsion and hoisting, pumping or drilling power, or on a stationary platform, Allison automatic transmissions make the job easier on the operator, the crew and the equipment. Because Allison Automatics allow people to be more productive and profitable at their jobs, they help you recruit and retain the best people. Training on the Allison is virtually eliminated and safety is enhanced. You can make better use of your time orienting new recruits to proper well-site procedures and safety.



Ask for the Allison



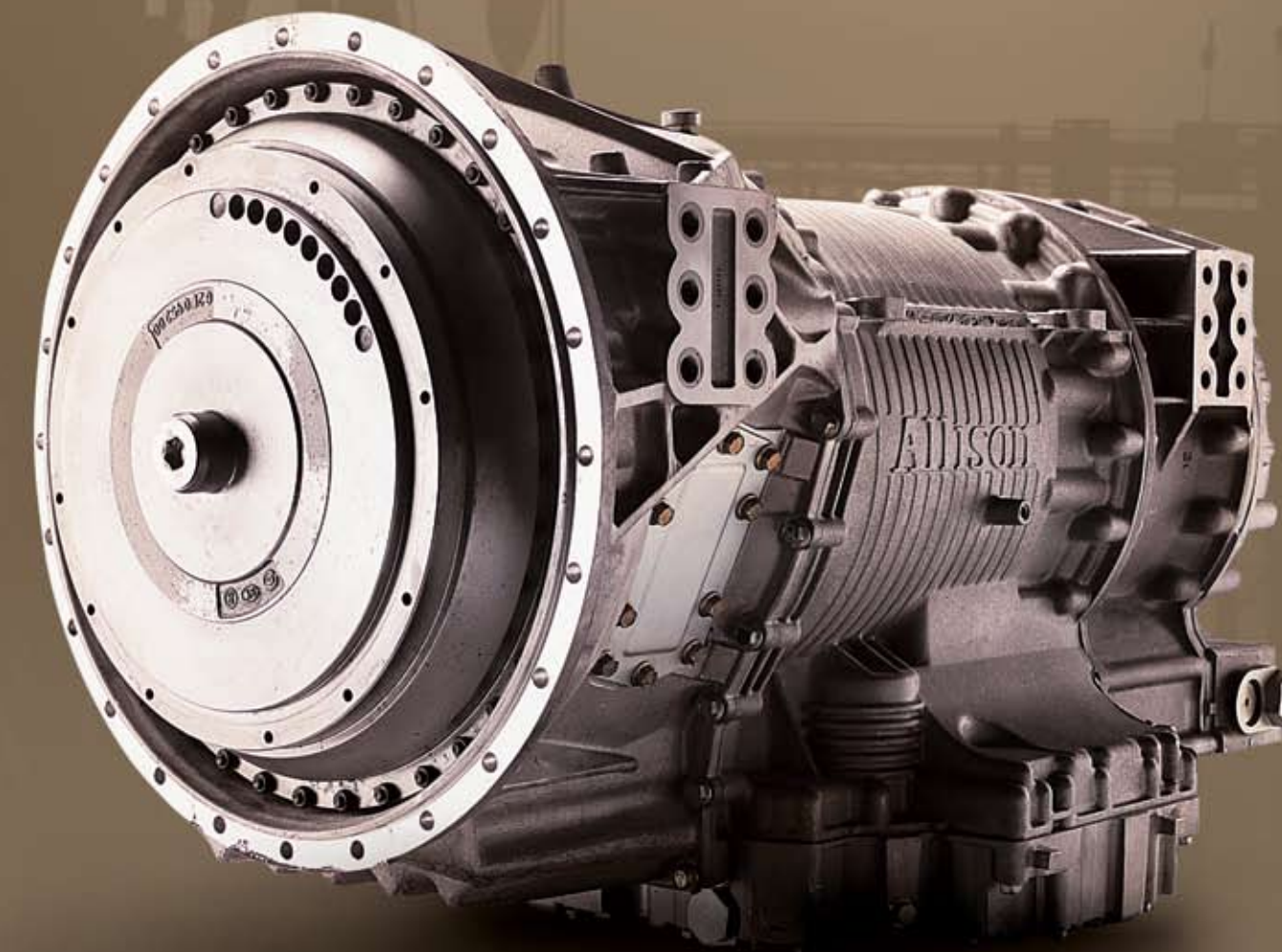
Ask your dealer for a complete listing of vehicle models featuring Oil Field Series transmissions, or contact your Authorized Allison Distributor. For the representative close to you, visit [www.allisontransmission.com](http://www.allisontransmission.com).

DRIVING TRANSMISSION TECHNOLOGY™



For more general and technical information on Allison OFS transmission models, visit the Allison Transmission web site: [www.allisontransmission.com](http://www.allisontransmission.com).

DRIVING TRANSMISSION TECHNOLOGY™



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P.O. Box 894, Speed Code 462-470-PF3  
Indianapolis, Indiana 46206-0894

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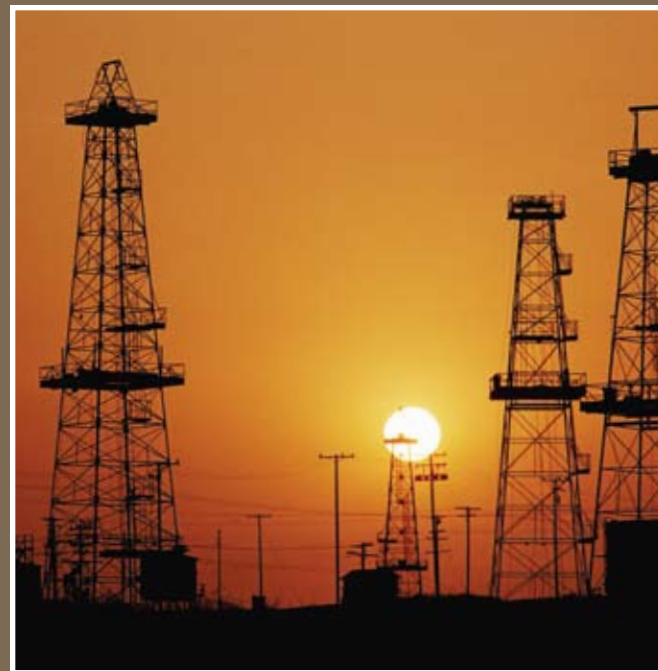
# MORE THAN UP TO THE JOB

The Allison 4500 OFS and 4700 OFS (Oil Field Series) transmission models have the legacy, technology and ratings to offer you a robust, technically advanced and extremely cost-effective transmission for oil and gas field applications. Developed to be the worthy successor to Allison's venerable HT 750DR and CLT 754 well servicing transmissions, the 4500 OFS and 4700 OFS have more than ample horsepower and input torque ratings to offer you a seamless alternative to the HT and CLT series. Plus they incorporate new technologies and design features that enhance transmission performance, productivity and reliability.

You now have more effective and efficient transmissions for a high percentage of your installations. Whether you're drilling, setting pipe or pumping, the OFS models will work harder, faster, and more reliably, allowing you to stay in production longer.

Plus, Allison OFS models can be used for vehicle propulsion. So, not only will an Allison OFS transmission make your job onsite easier and more productive, it will make getting to the jobsite easier — on highway or off road.

Allison Transmission designed and built the OFS Series specifically for the rigors of oil field operations. They are the only Allison on-highway transmissions certified for well servicing rig propulsion and auxiliary power applications such as high pressure pumping (cementing/nitrogen) and hoisting.



**A history you can trust.** Allison Automatics have nearly 60 years of superior productivity in all sorts of demanding operations. The torque converter/planetary gear design has an unparalleled reputation for performance and reliability in grueling off-highway and high shift density vocations. Their smooth power delivery and full-power shifts improve productivity wherever Allison automatic transmissions go to work.

**Our core advantage.** For more than 30 years in oil and gas fields all over the world, Allison Automatics have made drilling, setting pipe, hydraulic fracturing and cementing easier and more productive. With their patented torque converter technology, Allison Automatics apply torque smoothly throughout the horsepower range, optimizing productive horsepower and reducing stress on the entire powertrain.

With their full-power shifts, Allison Automatics deliver continuous horsepower and torque where it's needed. So, besides speeding up the work process, the Allison continuous power advantage may allow you to require an engine spec with less horsepower and torque that will still get the required productive horsepower down the well or to the pump.

**It's a dirty business.** The Allison Automatic 4700 OFS is as rugged as the job it has to do. The oil and gas patch is a notoriously equipment-unfriendly workplace. The long hours, continuous duty, heavy loads and corrosive environment can eat away at powertrain endurance. In addition to Allison automatic transmissions offering superior driveline protection, the 4700 OFS is offered with corrosion-resistant components and housings. The corrosion protection consists of anodizing the cast aluminum housings inside and out to ensure no exterior surfaces remain unprotected. This is especially important in offshore installations.

**Remote-mounted filter kit.** Allison OFS transmissions offer an optional remote-mounted filter kit for customer installation. This kit remotely locates the transmission fluid filters for ease of service in installations where standard internal filters would not be accessible.



**Where in the world.** Keeping you in production is no game. When you need parts or service, you need them now. Allison's truly worldwide authorized service channel puts you in touch with Allison product information, service and parts fast. With more than 1300 service centers and distributors around the globe, finding and getting what you need becomes a whole lot easier. The fact is, sooner or later things break. The question is, who can fix you up faster to get you back in production sooner? Allison has the service and supply pipeline you can count on.

**Safety first.** Transmissions and control system components are available which meet Zone II certification requirements for off-shore oil field applications. Contact your Allison representative for details.

**What's up, DOC™** And to make sure the Allison Automatic keeps running at peak performance, Allison offers both preventive and trouble-shooting self-diagnostics. With Allison's DOC™ (Diagnostic Optimized Connection) system, you have a sophisticated, easy to use, PC based diagnostic tool.

Your technician can then either trouble shoot the problem or transmit the data via e-mail to your local Allison service center for their interpretation and recommendations. This ability to routinely monitor the transmission's performance helps keep this valuable component on the line and in prime condition.

**The right transmission fluid for the best performance and reliability.**

The OFS models require either TES-389 transmission fluid or TES 295 fluid such as TranSynd.™ Either will keep your OFS model running like a well-oiled machine.\*

\*TranSynd™ RD is not a TES 295 fluid and, therefore, is not acceptable in the OFS models.



**Allison 4th generation electronic controls.**

The OFS transmissions are electronically actuated by either Allison supplied push button or lever CAN-based shift selectors. As the world leader in electronically controlled commercial and heavy-duty transmissions, Allison knows what works and what lasts. Allison's proprietary electronic controls offer ergonomic design, bright, legible displays, simplified mounting, and responsive, reliable "fly by wire" control — all contributing to easier, more precise, more productive operation. If the application requires it, the OFS can also be operated by an OEM built CAN-based or analog shifter.

The state-of-the-art adaptive electronic controls can be programmed for your specific situation and offer self-diagnostic ability for easier maintenance, programmable settings to customize the transmission to your particular operating requirements, and a secondary shift schedule that permits even more precise control of the job at hand.

The secondary shift schedule can be programmed for manual powershift operation for use in stationary applications such as pumping and hoisting. In dual mode applications, the fully automatic primary shift schedule is used for vehicle propulsion. The transmission can transition between the two shift schedules with the push of a button.

Because the two shift schedules are in the transmission control module, the transmission does not require the addition of special external mechanical valves and linkages.



**The Allison brand promise.** When you buy an Allison Automatic, you're investing in a combination of resources that no other transmission company can offer you. You've got unrivaled quality, reliability, product innovation, vocational value and customer service. That's what has made and maintained Allison as the worldwide industry leader in automatic transmissions. That's why you want Allison maximizing your oil field powertrain and productivity.

**The value of productivity.** Everything you do is a race against the clock. The exploration, the drilling, the discovery, the production well, the pumping — all put a huge price tag on time, and performance. You can't afford a powertrain that doesn't give you the most productivity and the most reliability in getting the product from the ground into the pipeline. Equipment downtime and production delays can cost your company hundreds of thousands of dollars. Make sure your prime mover drives through an Allison OFS automatic transmission.

**The right power to size ratio.** Because of their efficient size, horsepower and torque capacity, and superior horsepower throughput, the Allison OFS models allow you to configure a versatile prime mover package for mobile rigs, truck bed mounted applications, or pallet mounted stationary installations. They are also ideally suited for vehicle propulsion on- and off-road.

4000/CLT/HT GEAR RATIO SUMMARY				
	4500 OFS	CL(B)T 700	4700 OFS	HT 750DR
First	4.70	5.18	7.63	7.97
Second	2.21	3.19	3.51	3.19
Third	1.53	2.02	1.91	2.02
Fourth	1.00	1.38	1.43	1.38
Fifth	0.76	1.00	1.00	1.00
Sixth	0.67	—	0.74	—
Seventh	—	—	0.64	—
Total Ratio Coverage	7.01	5.18	11.92	7.97

**But wait, there's more.** Starting with a technologically advanced, extremely efficient transmission platform, you have a number of valuable optional features to maximize productivity for your particular operation.

OPTIONAL HARDWARE FEATURES				
	4500 OFS	4700 OFS	HT 750DR	CL(B)T 754
Corrosion Protection	—	•	•	•
Remote Mount	•	•	•	•
Engine Driven PTO Provision	•	•	•	•
Output Retarder	•	•	—	—
Drop Box Provision*	•	•	—	—
Integral Drop Box**	•	•	•	•
Remote Sump Filters	•	•	—	—
Oil Level Sensor	•	•	—	—

\*Customer supplied drop box required

\*\*There are integral drop boxes available for the OFS models but Allison does not build or provide drop boxes

RATINGS			
	Input Torque Gross Nm (lb. ft.)	Input Power Gross Kw (hp)	Turbine Torque Net Nm (lb. ft.)
4500 OFS	2237 (1650)	410 (550)	3525 (2600)
4700 OFS	2508 (1850)	447 (600)	3525 (2600)

PHYSICAL DESCRIPTION				
	4500 OFS	4500 OFS w/PTO and Retarder	4700 OFS	4700 OFS w/PTO and Retarder
Length FW housing to Output Flange	31.2 in (793 mm)	34 in (866 mm)	41.3 in (1049 mm)	44.2 in (1122 mm)
Weight	831 lbs. (377 kg)	968 lbs. (439 kg)	1087 lbs. (493 kg)	1224 lbs. (555 kg)

\*Approximate length from engine housing to output flange (depending on output flange type)

PROGRAMMABLE FEATURES		
	4500 OFS	4700 OFS
Powershift	•	•
Dual Shift Schedule	•	•
Dual Mode	•	•
Low - Lockup Hold	—	•
1st - Lockup Hold	•	•
PTO Request	•	•
Shift Selector Transition	•	•
Auxiliary Function Range Inhibit	•	•
Engine Brake & Preselect Request	•	•
Quick-To-Neutral	•	•
Manual Lockup Enable	•	•
Reverse Enable	•	•
Anti-Lock Brake Response	•	•
Retarder Enable	•	•
Service Brake Status	•	•
Auto 2:1 Preselect for 7 Speed	—	•
Auxiliary Box Transition	•	•
Shift Selector Transition & Oil Field Pumping	•	•
Sump/Retarder Temperature Indicator	•	•
Range Indicator	•	•
Output Speed Indicator	•	•
PTO Enable	•	•
Lockup Indicator	•	•
Secondary Mode Indicator	•	•
Retarder Indicator	•	•

## TAILORED TO THE NEEDS OF THE OIL AND GAS PATCH

- Meets higher horsepower demands.

- Four, five, six or seven speeds (top two gears are overdrive).

- Selectable deep ratio first gear.

- Automatic Lock-Up enhances performance with less heat generation (available in low gears if "pre-selected").

- Vocational Input/Output packages maximize efficiency and safety.

- Two engine-driven PTO mounting positions available.

- Precise control in auxiliary operations.

- Optional integral output retarder provides additional braking power and maximizes service brake life.

**OIL FIELD SERIES**