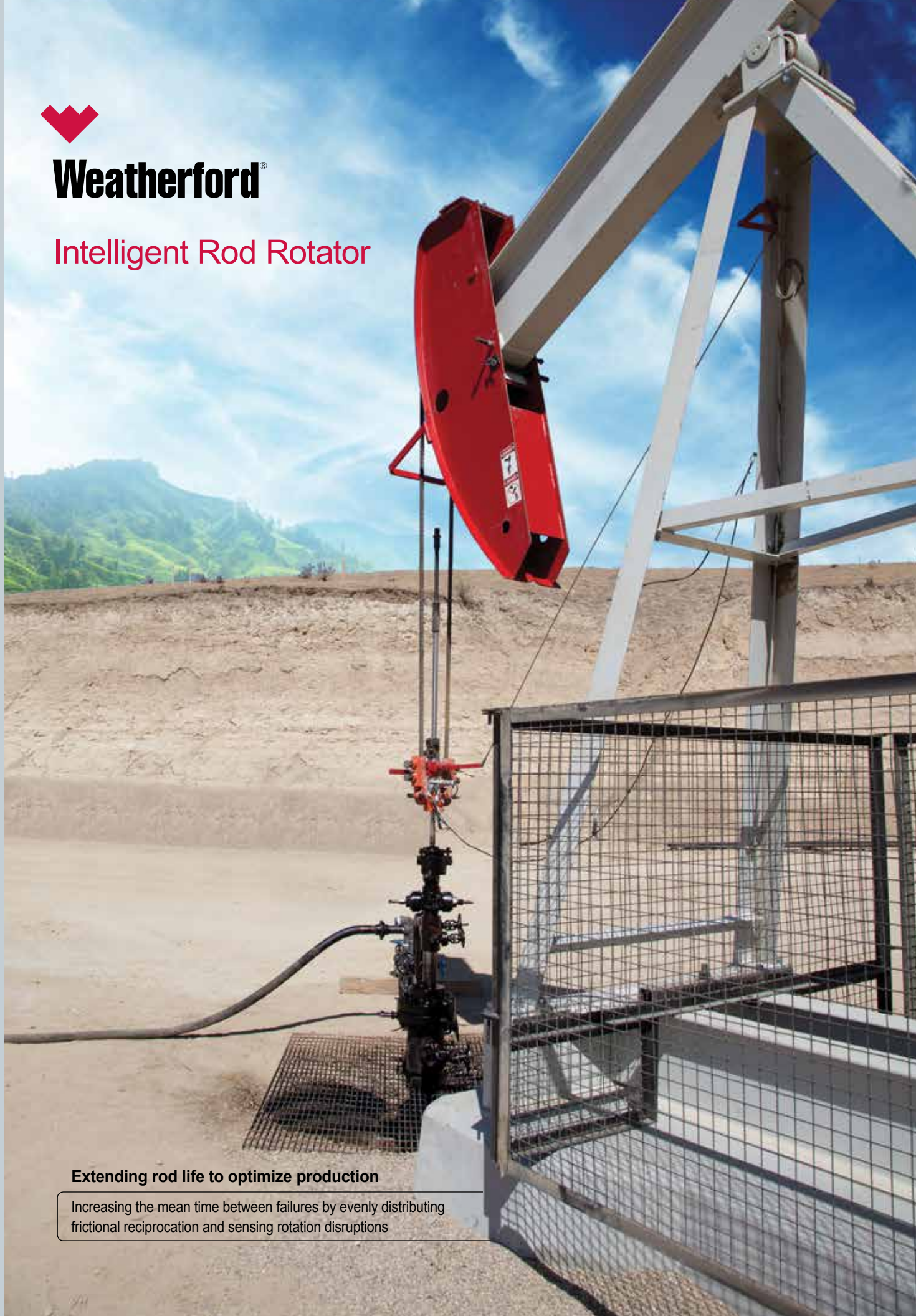




Weatherford®

Intelligent Rod Rotator



Extending rod life to optimize production

Increasing the mean time between failures by evenly distributing frictional reciprocation and sensing rotation disruptions





The Weatherford intelligent rod rotator extends the working life of sucker rods to boost production in mature wells

Conventional sucker rod rotators are designed to rotate the rod string with each stroke to evenly distribute wear around the rods and couplings, rather than limiting the wear to one side. However, an ineffective rotator does little or nothing to extend the life of the rods and risks the integrity of the entire rod-pumping system. Short of going to the well site and visually verifying its operation (which itself is not foolproof), you have no way of knowing if your rotator slowed down or stopped working altogether—until now.

The Weatherford intelligent rod rotator is an affordable, durable solution that seamlessly integrates with existing rod-pump controller systems.

This patent-pending device incorporates several new technologies, including an internal rotation sensor and a built-in antirotation mount that take the guesswork out of rotator failures and reduce the likelihood of lost production.


Real-time software integration optimizes production and monitoring

The intelligent rod rotator is optimized for use with the Weatherford WellPilot® rod-pump optimization controller application and the LOWIS™ life-of-well information software platform. Sensors in the rotator enable remote data tracking and initiate alarms at both the well site and the field office to alert operators if attention is needed. Because you will know the exact location of needed repairs, you can quickly deploy a service technician to keep the intelligent rod rotator operating optimally.

WellPilot rod-pump controller

The *WellPilot* variable-speed-drive rod-pump controller helps you optimize your wells with unprecedented accuracy. The controller provides continuous control of downhole pump fillage with speed and torque override for optimum well management while storing 120 days of historical production data.





Acting on a client's request, Weatherford developed the intelligent rod rotator as an affordable, efficient, and safe alternative to visual field inspection of individual wells.

Our rotator achieved the operator's objectives: reducing the time required to identify a disruption in rotator service, increasing remote well-surveillance capabilities, and reducing the likelihood of lost production. During the field trials, the system consistently and accurately notified the operator within hours of a disruption—a major improvement from what had previously taken as much as 4 weeks to detect.

The Weatherford intelligent rod rotator detects and notifies operators of wellsite problems that conventional rotators cannot:

- Improper installation
- Stretched or broken cables and springs
- A mounting bracket out of position
- Failure of internal components



Screenshot of the intelligent rod rotator’s revolution counter being trended in the LOWIS™ software. The trend identifies two periods (circled in red) when the pump was running and the rotator was not working as expected. The condition generates an alarm signifying the need for attention or action.

The intelligent rod rotator, constructed of high-quality alloy steel, operates via a ratchet-driven worm-gear transmission. A cable attached to the walking beam cycles the ratchet on each stroke. The ratchet drives the gears, turning the rod string to evenly distribute wear and enable longer intervals between rod-string replacements. Used in conjunction with properly spaced rod guides, it can remove paraffin from the entire inside circumference of the tubing.

Intelligent Rod Rotator Specifications

	13K	40K	40K-SG
Maximum load recommended	13,000	40,000	40,000
Maximum output torque (ft-lbf, N•m)	110 149	250 339	250 339
Polished rod sizes (in., mm)	1.125 to 1.250 28.575 to 31.750	1.125 to 1.750 28.575 to 44.450	1.125 to 1.750 28.575 to 44.450
Minimum opening between bridle lines (in., mm)	4 101.6	7 177.8	7 177.8
Height (in., mm)	4.5 114.3	6.5 165.1	6.5 165.1
Shipping weight (lb, kg)	32 14.5	54 24.5	54 24.5
Body material	Alloy steel	Alloy steel	Alloy steel
Actuator cable length (ft, m)	16 4.9	25 7.6	25 7.6
Lever pulls (90° per revolution)	30	80	160
Rotation type	Helical gear	Helical gear	Helical gear
Rotator part number	2016722	1990356	2005525

Weatherford Rotator Sensor/Cable Kit	Part Number
25-ft cable, Weatherford rod rotator kit	2104016
50-ft cable, Weatherford rod rotator kit	2105034
75-ft cable, Weatherford rod rotator kit	2105035
100-ft cable, Weatherford rod rotator kit	2174121



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Weatherford offers complete artificial lift systems to optimize your wells.
For more information or to reach a regional representative,
contact us at **PO-Info@weatherford.com**.



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