LTI rate increases for second consecutive year

Joe Hurt, IADC Director, Land Operations

THE LOST TIME INCIDENCE (LTI) and Total Recordable Incidence (TRI) rates in 2001 have ticked up for the second year in a row.

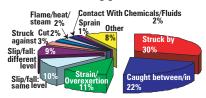
This is in contrast to the long continuous improvement in the industry's safety record.

According to the "2001 IADC Summary of Occupational Incidents" (SOI), industry wide, the rate of LTIs last year slipped 10% from 0.91 per 200,000 manhours in 2000 to 0.99 per 200,000 manhours for 2001. The 2001 LTI rate is 34% higher than the 1999 LTI rate of 0.74.

The industry's TRI rate also rose slightly, posting a 4% increase from 3.52 in 2000 to 3.66 in year 2001, 18% higher than the 1999 rate of 3.09.

The SOI is compiled annually from data volunteered by drilling contractors worldwide to the IADC ASP program.

Accident type



During 2001, 89 contractors representing approximately 70% of the worldwide rig fleet, participated in the IADC AS program, with a total of 235.83 million manhours worked.

Contractors striving for safety improvement by participating in the IADC ASP program reported 4,311 TRIs, 1,144 LTIs and 20 fatalities. Note that IADC ASP LTI rates include fatal incidents along with LTIs.

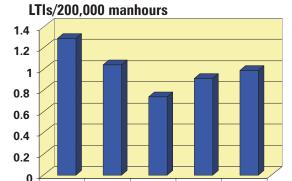
The data is compiled separately for land and offshore operations and for seven geographic regions—US, Europe, Canada, Central & South America, Africa, Middle East and Asia Pacific.

ACCIDENT TREND AND RIG COUNT

After five years of uninterrupted improvement from 1995 through 1999,

US land workers had a small downturn in LTI and TRI rates in 2000 and 2001. Those regions with a more drastic upturn in operating manhours also had

Total industry incidence rate



the more drastic upturn in incidence rates, while those with little or no change in operating manhours showed improvement or little change in LTI and TRI rates.

1999

2000

2001

1997

1998

LTIs among US offshore workers rose 26% from 0.53 in 2000 to 0.67 in 2001, while their TRI improved 22% from 2.93 in 2000 to 2.30 in 2001.

US land saw the largest increase in man-hours and workers saw their LTI rate rise 2% from 2.19 in 2000 to 2.23 in 2001 and TRI rose 7% from 8.27 in 2000 to 8.86 in 2001.

European land workers saw their LTI rate improve 28% from 1.27 for 2000 to 0.92 for 2001. The TRI rate also improved 10% from 3.55 in 2000 to 3.19 in 2001.

European offshore workers LTI rate improved 25% from 0.97 in 2000 to 0.73 for 2000 while the TRI rate improved 13% from 2.33 in 2000 to 2.03 in 2001.

International land drilling LTI rates stayed the same with an incidence rate of 0.54 for 2000 and 2001. The international TRI rate improved with a decline of 5% from 2.08 in 2000 to 1.97 in 2001.

International water LTI rates rose 4% from 0.48 in 2000 to 0.50 in 2001, while the TRI rate remained nearly the same with a .1% improvement from 1.76 in 2000 to 1.75 in 2001.

HOURS WORKED

Although the upturn in rig activity brought about an upturn in occupation-

al incidents for 2001, the worldwide LTI incidence rate per 100 workers has fallen from more than 14.00 in 1963 to 0.99 in 2001, which is a 14 fold improvement.

With the upturn in rig count and incidence rates, fatalities dropped to 20 which is five less than the 25 that occurred in 2000, but still up from 9 in 1999.

Contractors in the European land and offshore categories worked more than 25.9 million manhours with two fatalities in 2001.

European offshore accounted for almost 20.7 million manhours worked with one fatality while European land had 5.2 million manhours and one fatality.

Shoulder(s) Other Knee(s) 4% 13% 6% 13% 16% Ankles Trunk/6% 6% 8% 8% 8% 9% 11% Back Legs Head Hands/Wrists

US land and offshore contractors together worked more than 105.6 million manhours with eight fatalities occurring in the land category and three in the offshore category. US land exceeded US water in manhours 56.1 million to 49.5 million.

Location Stairs/ladders 2% Other Rig floor Mud Mixing, Tank Area 7% Substructure 3% Catwalk/ V-door 4% Derrick Rig pad/rig decks Pipe Rack / Deck

INTERNATIONAL REGIONS

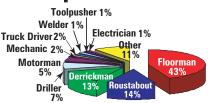
In 2001 what was known as the International Category was split into six regions, Canada, Central and South America, Africa, Middle East and Asia Pacific. Since this is the first year for

data to be collected for these various regions, there is not data to compare 2001 to 2000.

Canadian contractors accounted for 2.2 million manhours with no fatal incidents.

Canadian land had 1.2 million manhours and offshore had 1.0 million manhours. In 2001 Canada land had an LTI rate of 1.02 and TRI rate of 5.43 while Canada water had an LTI rate of 1.00 and TRI rate of 1.40.

Occupation



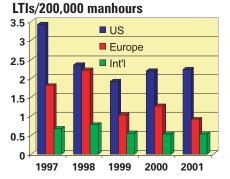
Central and South America accounted for 28.8 million manhours with two fatalities occurring in the offshore operations, which had 13.2 million manhours.

Central & South America. Land was the larger with 15.6 million manhours with no fatal incidents. Central and South America land had 0.45 and 1.57 incidence rates for LTIs and TRIs respectively. Central and South America water LTI rate was 0.86 while the TRI rate was 2.49 for 2001.

Africa accounted for 18.5 million manhours and three fatalities on Africa land which accounted for only 5.1 million manhours compared to Africa water with 13.4 million manhours.

Africa land LTI rate was 0.74 and TRI rate was 3.60. Africa water LTI and TRI rates were 0.58 and 1.94 respectively.

Land incidence rate



The Middle East region accounted for 27.7 million manhours with one fatality occurring in the land division, with 17.4 million manhours compared with 10.3 million manhours for the offshore division.

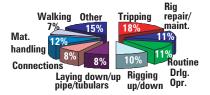
Middle East land had an LTI rate of 0.43 and TRI rate of 1.05 while Middle East water had an LTI rate of 0.25 and TRI rate of 0.97.

Asia Pacific accounted for 27 million manhours and one fatality which occurred in the offshore division.

Asia Pacific Offshore had 18.5 million manhours to 8.5 million manhours for the land division.

Asia Pacific Land LTI rate was 0.78 and TRI rate was 3.17 while Asia Pacific water had an LTI rate of 0.30 and TRI rate of 1.53.

Operation



GREATEST RISKS

Incidents occur in many places around the rig and to all crew members. Many types of equipment and rig operations are involved in incidents and all parts of the body are at risk.

Incident data is analyzed by occupation, body part, incident type, equipment type, operation and location.

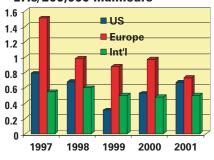
Data from the IADC ASP program show that of all the categories, as with previous years, the floorman suffers the most. In 2001, 44.0% of the 1,164 (1,144 LTIs plus 20 Fatalities) LTIs worldwide were experienced by floormen. Floormen also accounted for 44.8% of 4,311 TRI injuries worldwide.

Fingers, the most vulnerable part of the body, account for 16.7% of total LTIs and 25.1% of the TRIs worldwide.

"Struck by" (29.3%) and "Caught between/in" (22.3%) are the most common causes of incidents, representing

Offshore incidence rate

LTIs/200,000 manhours



about 51.6% of the total LTI types and 50.6% of the TRIs.

"Pipes/collars/tubulars" is the equipment category responsible for the most LTIs at 19.3% and 16.2% of the industry's TRIs.

For the second year in a row, "tripping in/out of the well" was the operation that resulted in the most injuries at 15.9% followed by "rig repairs/maintenance" at 10.4%.

"Tripping in/out" is also responsible for 17.4% of the TRIs in 2001 with "rig Repairs/Maintenance" being responsible for 11.6%.

Equipment



Finally, it is no surprise that by far the most incidents in drilling operations occur on the rig floor—39.3% of the total LTIs, which is up 8% over 2000.

The rig floor also accounted for 39.3% of the TRIs in 2001.

The 2001 SOI is available for purchase either as a CD or book format through IADC Document Service. Call **Loretta Krolczyk** at 1/281 578 7171, ext 215 (fax, 1/281 578 0589; publications@iadc.org).

To learn more, call **Dawn Brown**, 1/281 578 7171, ext 205 or e-mail at (dawn.brown@iadc.org).